

STARTING SALARIES 1983

**Analysis of the
American Chemical Society's
Survey of Graduates in
Chemistry and Chemical Engineering**



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American Chemical Society
Washington, D.C.**

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1983 SURVEY REPORT

STARTING SALARIES AND EMPLOYMENT STATUS OF
CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by
ACS Statistical Services

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CONTENTS

	Page
Acknowledgments	v
Summary of Findings	1
Salaries	
Postgraduation Status	
Advanced Study Plans and Postdoctoral Fellowships	
Certified Graduates	
Interpreting Survey Results	
Scope and Method	9
Objectives	
Methods of Collection and Timing of Survey	
Extent of Coverage	
Definitions	
Geographic Regions	
Technical Notes	13
Discrepancies Among Tables	
Estimates of Median Salaries	
Comparing Salaries	
Estimating Sampling Error for Percents	
List of Tables	15
Tables	18
Survey Questionnaire and Cover Letter	65

ACKNOWLEDGMENTS

Each year the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status, at the direction of the Society's Committee on Economic Status. John Robert Jones, Sandy Schowgurow, and Nguyen Bailey of ACS Statistical Services conducted this year's survey and prepared this report.

Robert K. Neuman, Head
Department of Professional Services

SUMMARY OF FINDINGS

SALARIES

Starting salaries for inexperienced BS chemists continue to be a disappointment. After more than a decade of steady increases, in 1982 salaries for fledgling chemists held steady at their 1981 level, and now they actually show a slight decrease. Furthermore, inflation hastens the deterioration in the buying power of those entering the profession as BS chemists.

In contrast, chemists with advanced degree face a somewhat more encouraging labor market. For inexperienced chemists who have just received the master's degree the mean salary rose enough to cause a slight increase in buying power. And for new doctoral chemists the increase in salaries at least kept buying power at the same level as 1982.

Although chemical engineering graduates at all three degree levels continue to enjoy salaries larger than those of chemists, in one way this year's labor market was even more of a let down for chemical engineers than for chemists. Not only did salaries for inexperienced BS graduates decrease, but those for MS recipients also slipped. These decreases come after more than ten years of steady increases.

Table 1 shows average starting salaries paid to inexperienced chemistry graduates for 1982 and 1983, and gives additional information concerning the variation among individual salaries within each group. Table 2 presents corresponding information for chemical engineering graduates.

For inexperienced chemists, 1983 mean starting salaries were

\$17,044 for the BS, down 1.5%, or in constant dollars down 4.0%
\$24,009 for the MS, up 5.5%, or in constant dollars up 2.9%
\$31,613 for the PhD, up 2.8%, or in constant dollars up 0.3%

Chemical engineers continue to receive larger starting salaries than do chemists with similar degrees. Among chemical engineers the 1983 mean starting salaries were:

\$25,281 for the BS, down 4.1%, or in constant dollars down 6.5%
\$28,392 for the MS, down 1.5%, or in constant dollars down 4.0%
\$36,476 for the PhD, up 5.3%, or in constant dollars up 2.7%

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer 1982 and Summer 1983

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1982	1983	1982	1983	1982	1983
90th Percentile	\$23,000	\$22,500	\$27,000	\$32,800	\$35,000	\$36,882
75th Percentile	20,475	20,000	26,000	28,625	34,000	35,000
50th Percentile	17,000	16,530	24,120	24,920	32,400	33,550
25th Percentile	14,000	14,000	19,875	17,000	30,000	29,281
10th Percentile	12,000	12,000	15,270	15,140	22,530	21,550
Mean	17,303	17,044	22,758	24,009	30,742	31,613
Count	340	174	58	26	200	70
Standard Deviation	4,624	4,325	5,067	6,787	5,327	5,644

Table 2

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMICAL ENGINEERING GRADUATES

by Degree: Summer 1982 and Summer 1983

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1982	1983	1982	1983	1982	1983
90th Percentile	\$28,810	\$28,200	\$31,950	\$32,010	\$37,940	\$40,400
75th Percentile	28,000	27,500	30,000	30,000	36,500	39,500
50th Percentile	26,700	26,100	29,000	29,250	35,000	38,000
25th Percentile	25,770	24,000	27,345	26,880	34,000	35,650
10th Percentile	23,000	20,000	25,325	24,994	30,600	26,000
Mean	26,352	25,281	28,832	28,392	34,634	36,476
Count	558	335	54	46	32	17
Standard Deviation	2,953	3,809	2,903	3,821	3,276	4,993

POST-GRADUATION EMPLOYMENT STATUS

Besides the decreasing salaries, another sign of weak demand is that many graduates had not found any employment at all by the time of graduation. Table 3 shows that the unemployment rate is severe in chemical engineering. More than a third of those who received the bachelor's degree in chemical engineering were still unemployed when they completed the survey questionnaire.

Although unemployment is less severe in chemistry than it is in chemical engineering, even in chemistry the problem is worse than the figures in Table 3 seem to indicate. To understand the extent of unemployment among chemistry graduates requires an additional calculation. Because unemployment is defined as a fraction of the labor force, persons not seeking work (the majority of BS chemistry graduates) are neither employed nor unemployed. An accurate reading of the unemployment rate, therefore, requires removing from the denominator of the unemployment rate two groups not seeking employment: graduates who plan to attend graduate school and those not seeking full-time employment, most of whom plan to attend medical school or dental school. Performing the calculation in this way yields larger unemployment rates among recipients of the bachelor's degree: 31% in chemistry and 42% in chemical engineering.

The recent history for unemployment calculated in this way is:

	1983	1982	1981	1980
Chemical Engineering	42%	26%	8%	6%
Chemistry	31	21	23	22

PLANS FOR ADVANCE STUDY and POSTDOCTORAL FELLOWSHIPS

In chemistry, postdoctoral fellows as a percent of new PhDs provides a rough indicator of demand. Because some of the new doctoral chemists who accept postdoctoral fellowships would have preferred full-time employment, an increase in the fraction accepting such fellowships indicates insufficient full-time employment. This year this measure of demand indicates that the climate is slightly less hospitable than it was last year: 33.7% accepted postdoctoral positions in 1983 as compared with 30.7% in 1982.

Bachelor's degree recipients' plans for advanced study are little different from those of last year's graduates. Summary of these plans appears in Tables 4 and 5.

GRADE-POINT AVERAGES

Most persons who receive the bachelor's degree in chemistry go into graduate school or professional school, and so discussion of "typical" salaries paid to new bachelor's degree chemists requires a certain degree of caution. Nevertheless, that subject is one of intense interest to those

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES: SUMMER 1983

Major and Employment Status	Bachelor's	Master's	Doctorates
CHEMISTRY			
Full-time employed:			
In chemistry or chemical engineering	23.5%	47.2%	56.1%
Outside chemistry or chemical engineering	9.2	4.0	4.8
Postdoctoral/grad. asst./other fellowship	31.5	36.6	33.7
Unemployed and seeking full-time employment	14.6	9.8	3.4
Unemployed and not seeking full-time employment	21.2	2.4	2.0
Total	100.0	100.0	100.0
Number of responses	1,097	123	205
CHEMICAL ENGINEERING			
Full-time employed:			
In chemistry or chemical engineering	35.2%	52.4%	82.1%
Outside chemistry or chemical engineering	11.5	3.5	5.1
Postdoctoral/grad. asst./other fellowship	15.6	26.2	12.8
Unemployed and seeking full-time employment	34.4	17.2	-
Unemployed and not seeking full-time employment	3.3	0.7	-
Total	100.0	100.0	100.0
Number of responses	1,388	145	39

Table 4

PLANS FOR ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY
AND CHEMICAL ENGINEERING GRADUATES: FALL 1983

	Chemistry	Chemical Engineering
Plan further studies	65.8%	37.6%
Full-time	(54.8)	(21.4)
Part-time	(11.0)	(16.2)
Have no plans or no response	33.1	61.2
Total	100.0	100.0
Number of responses	1,121	1,404

Table 5

FIELD OF ADVANCED FURTHER STUDIES OF B.S. CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES
Fall 1983

Field of Study	Chemistry	Chemical Engineering
Full-time		
Chemistry or biochemistry	45.6%	2.0%
Chemical engineering	2.6	67.1
Medicine or dentistry	37.5	6.0
Business or management	1.1	10.6
All others	13.2	14.3
Total	100.0	100.0
Number of responses	614	301
Part-time		
Chemistry or biochemistry	43.0%	5.3%
Chemical engineering	3.3	22.8
Medicine or dentistry	6.5	0.4
Business or management	17.9	35.1
All others	29.3	36.4
Total	100.0	100.0
Number of responses	123	228

graduates who accept full-time employment as it also is to their employers. One indication of this interest is that last year several employers commented that salaries paid recipients of the bachelor's degree in chemistry are actually more than the 1982 report indicated. Perhaps these employers pay more than average salaries. If this explanation is correct, then an immediate question arises: How do they choose who will receive these premium salaries?

As part of an attempt to examine why some graduates receive salaries very much larger than others do, this year's questionnaire asked graduates several questions not included in previous years. Early in 1984 ACS Statistical Services will publish a special report analyzing these data.

Preliminary findings indicate that the analysis will include some conclusions that are far from obvious. For example, among graduates with high grades women earn more than men, whereas among graduates with average grades men earn more. Another example concerns the relationship between the salary received by a recipient of the bachelor's degree in chemistry and the highest degree offered by the department that granted that degree: Apparently, the biggest salaries go to graduates of departments that offer the master's degree but not the doctorate. A final example relates salary to both the sex of the graduate and the type of control of the school from which the woman or man graduated: among graduates of private schools men and women earn the same salaries, whereas among graduates of public schools men earn more.

SCOPE AND METHOD

OBJECTIVES

The 1983 Starting Salary Survey is the 32nd in the series of annual surveys now conducted by Statistical Services of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of the Chemical and Engineering News, this year published on October 17.

The primary objective of the survey is to gather data on the starting salaries and occupational status of new chemists and chemical engineers who graduated during the 1982-83 academic year. The survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and minority classification.

METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry and chemical engineering departments provided names and addresses of students who graduated between September 1, 1982 and June 30, 1983. The cooperating departments were the chemistry departments approved by the ACS and the chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development.

During the summer of 1983, ACS Statistical Services mailed questionnaires to those graduates who had U.S. addresses and graduation dates from September, 1982 through June, 1983. Summer graduates were excluded from the mailing because many of them had twelve months' experience by the time the survey was conducted.

EXTENT OF COVERAGE

Survey questionnaires were mailed between July and September to approximately 14,000 graduates. By the cutoff date of October 28, Statistical Services had received 3,352 usable responses.

The table below contains ACS estimates of the numbers of chemistry and chemical engineering graduates in 1983.

Projected Numbers of Degrees in
Chemistry and in Chemical Engineering, 1982-83

	Bachelors	Masters	Doctorate
Chemistry	11,700	1,720	1,680
Chemical Engineering	6,850	1,410	320

The survey respondents represent about 10.0 percent of all 1983 chemistry graduates and about 19.0 percent of all 1983 chemical engineering graduates. No effort was made to examine the characteristics of graduates from departments that did not participate in the survey or of those graduates who did not mail back completed questionnaires.

DEFINITIONS

The questionnaire appears at the end of this report. Responses to questions on post-graduation status were edited to eliminate multiple responses and to reflect as accurately as possible the employment status of the respondent.

The term "inexperienced" as used in the tables refers to those who have 12 months or less of prior professional work experience. Salary tables are based only on salaries of those who found full-time employment in chemistry or chemical engineering. Postdoctoral salaries are analyzed separately.

The Technical Notes present methods for estimating sampling error and also explain certain discrepancies among some of the tables.

GEOGRAPHIC REGIONS

PACIFIC

Alaska
California
Hawaii
Oregon
Washington

MOUNTAIN

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

WEST NORTH CENTRAL

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

WEST SOUTH CENTRAL

Arkansas
Louisiana
Oklahoma
Texas

EAST NORTH CENTRAL

Illinois
Indiana
Michigan
Ohio
Wisconsin

EAST SOUTH CENTRAL

Alabama
Kentucky
Mississippi
Tennessee

MIDDLE ATLANTIC

New Jersey
New York
Pennsylvania

SOUTH ATLANTIC

Delaware
District of Columbia
Florida
Georgia
Maryland
North Carolina
South Carolina
Virginia
West Virginia

NEW ENGLAND

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

TECHNICAL NOTES

DISCREPANCIES AMONG TABLES

Some pairs of tables contain totals that should be identical but are not. For example, two tables that present information about PhD respondents should show the same total number of PhDs. They might, however, show different totals. To illustrate, if one table groups the PhDs according to sex and the other groups them according to geographic region, the totals will differ unless the number who did not indicate their sex is the same as the number who did not indicate their geographic region.

ESTIMATES OF MEDIAN SALARIES

Median salaries displayed within the cells of the salary tables are sample medians and are therefore subject to sampling error. This error may be quite large, especially when the number of respondents in the corresponding cell is small. Therefore, median salaries in cells with fewer than 15 respondents should not be used to estimate their corresponding population medians. Similarly, tables showing the 25th and 75th salary percentiles, and those showing the 10th and 90th salary percentiles, should have at least 25 respondents and 40 respondents respectively.

COMPARING SALARIES

Often questions arise concerning women's salaries as compared with men's, or chemists' salaries as compared with chemical engineers'. These and similar comparisons require caution.

Statistical tests should be performed to determine whether observed differences in salaries of various sample groups could be mere chance occurrences resulting from peculiarities of the samples. Whether a difference in salaries is "statistically significant" depends not only on the magnitude of the difference but also on the sample sizes and the magnitudes of the sample standard deviations.

Statistical tests of significance may be found in Numerical and Statistical Techniques, by J. H. Pollard, Handbook of Tables for Probability and Statistics, published by the Chemical Rubber Company, and in other similar texts.

ESTIMATING SAMPLING ERROR FOR PERCENTS

Percents in this report are derived from the sample. If the entire population had received and returned questionnaires, most estimates would be somewhat different. How much different? Although this question does not have an exact answer, the table below does provide some guidance. To use the table, find the column headed by the percent (p) derived from the sample, and find the row appropriate for the sample size (n). (Approximations for p and n may be used.) Note the number in that column and that row of the table.

This number from the body of the table measures the precision with which the sample percent estimates the percent of the entire population. Specifically, if this procedure is applied repeatedly, about 95 times out of 100, the population percent will differ from the sample percent by no more than the amount shown in the table.

Approximate Sampling Errors for Percents

n	p= 10% or 90%	p= 20% or 80%	p= 30% or 70%	p=40% or 60%	p= 50%
50	8.3%	11.1%	12.7%	13.6%	13.9%
100	5.9	7.8	9.0	9.6	9.8
200	4.2	5.5	6.4	6.8	6.9
500	2.6	3.5	4.0	4.3	4.4
1000	1.9	2.5	2.8	3.0	3.1
2000	1.3	1.8	2.0	2.1	2.2
5000	0.8	1.1	1.3	1.4	1.4
10000	0.6	0.8	0.9	1.0	1.0

In Table B-1 for example, 115 respondents classified as chemists indicated their highest degree as PhD, and their employment status as employed full-time in chemistry or chemical engineering. The percent of this group who are women is listed at 19.1 percent (p=19.1). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 100 and 20%. The table shows an approximate sampling error of 7.8%. Hence, the 95% confidence interval is 11.3% to 26.9%. If 100 similar estimates were made at this "level of confidence," about 95 of the true population percents would be contained in their respective intervals.

LIST OF TABLES

	Table	Page
SALARIES OF RESPONDENTS		
Full-time Chemists		
Experience ----- Highest Degree -----	A-1	18
Full-time Chemical Engineers		
Experience ----- Highest Degree -----	A-2	19
Full-time Inexperienced Chemists in Private Industry		
Sex ----- Highest Degree -----	A-3	20
Full-time Inexperienced Chemical Engineers in Private Industry		
Sex ----- Highest Degree -----	A-4	21
Full-time Inexperienced Chemists		
Highest Degree ----- Sex -----	A-5	22
Employer -----	A-6	23
Men -----	A-7	24
Women -----	A-8	25
Geographic Region -- Highest Degree -----	A-9	26
Employer ----- Certification Status - Bachelors -----	A-10	27
Degree Field ----- Highest Degree -----	A-11	28
Full-Time Inexperienced Chemical Engineers		
Highest Degree ----- Sex -----	A-12	29
Employer -----	A-13	30
Men -----	A-14	31
Women -----	A-15	32
Geographic Region -- Highest Degree -----	A-16	33
EMPLOYMENT STATUS		
All Chemists		
Employment Status -- Sex ----- Highest Degree--	B-1	34
Certification Status -- Bachelors -----	B-2	35
Field of Highest Degree - Masters and		
Doctorates --	B-3	36
Citizenship ----- Highest Degree--	B-4	37
Minority Status ----- Highest Degree--	B-5	38
All Chemical Engineers		
Employment Status -- Sex ----- Highest Degree--	B-6	39
Citizenship ----- Highest Degree--	B-7	40
Minority Status ----- Highest Degree--	B-8	41

	Table	Page
ADVANCED FURTHER STUDIES		
Full-time or Part-time Study		
Chemistry Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-1	42
Certification Status - Bachelors-	C-2	43
Chemical Engineering Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-3	44
Full-time Study		
Chemistry Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-4	45
Certification Status - Bachelors-	C-5	46
Chemical Engineering Graduates		
Field of Advanced Study - Sex ----- Highest Degree-	C-6	47
Unemployed Chemistry and Chemical Engineering Graduates		
B.S. Chemistry Graduates		
Advanced Study Plans ---- Sex ----- Highest Degree-	C-7	48
B.S. Chemical Engineering Graduates		
Advanced Study Plans ---- Sex ----- Highest Degree-	C-8	49
AGE		
All Chemistry and Chemical Engineering Graduates		
Age ----- Sex ----- Bachelors ----	D-1	50
Masters -----	D-2	51
Doctorate ----	D-3	52
Postdoctoral Chemists		
Age ----- Sex -----	D-4	53
NUMBER OF JOB OFFERS		
Full-time Employed Inexperienced Chemists		
Number of Offers ----- Sex ----- Highest Degree-	E-1	54
Full-time Employed Experienced Chemists		
Number of Offers ----- Sex ----- Highest Degree-	E-2	55
Full-time Employed Inexperienced Chemical Engineers		
Number of Offers ----- Sex ----- Highest Degree-	E-3	56
Full-time Employed Experienced Chemical Engineers		
Number of Offers ----- Sex ----- Highest Degree-	E-4	57

Table Page

MINORITY CLASSIFICATION AND CITIZENSHIP

All Chemistry Graduates

Minority Classification ----	Citizenship --	Highest Degree-	F-1	58
	Sex -----	Highest Degree-	F-2	59
Citizenship -----	Sex -----	Highest Degree-	F-3	60

All Chemical Engineering Graduates

Minority Classification ----	Citizenship --	Highest Degree-	F-4	61
	Sex -----	Highest Degree-	F-5	62
Citizenship -----	Sex -----	Highest Degree-	F-6	63

TABLE A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1983 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
<12 months	16,530	24,920	33,550	31,250	19,350	- Median
	17,044	24,009	31,613	28,500	21,594	- Mean
	4,325	6,787	5,644	6,795	8,051	- Std Dev
	174	26	70	4	274	- Count
12-36 Months	17,000	24,800	33,600	15,750	20,599	
	17,842	23,503	29,857	15,750	21,890	
	4,031	7,306	6,917	2,475	7,549	
	47	12	23	2	84	
>36 Months	21,000	28,000	30,000	31,000	25,000	
	21,039	28,879	27,913	30,000	25,281	
	4,970	5,415	8,526	13,528	7,420	
	30	19	17	3	69	
No Response	---	---	38,800	---	38,800	
	---	---	38,800	---	38,800	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	17,000	25,000	33,500	30,000	20,500	
	17,671	25,526	30,747	26,167	22,287	
	4,521	6,799	6,527	9,959	7,982	
	251	57	111	9	428	

TABLE A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1983 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
<12 Months	26,100	29,250	38,000	31,500	26,400	- Median
	25,281	28,392	36,476	33,661	26,213	- Mean
	3,809	3,821	4,993	5,983	4,631	- Std Dev
	335	46	17	5	403	- Count
12-36 Months	27,000	30,090	36,000	24,100	27,192	
	26,167	29,695	35,396	24,100	26,921	
	3,258	3,515	3,332	4,808	3,915	
	130	16	7	2	155	
>36 Months	27,000	34,900	37,056	39,000	33,000	
	27,322	34,180	34,808	39,000	32,235	
	4,854	4,134	6,174	---	5,942	
	9	10	7	1	27	
No Response	23,050	32,000	40,000	---	29,800	
	23,050	32,000	40,000	---	29,525	
	6,435	---	---	---	8,965	
	2	1	1	0	4	
TOTAL	26,400	30,000	37,800	30,250	27,000	
	25,552	29,520	35,985	31,938	26,698	
	3,716	4,214	4,841	7,110	4,721	
	476	73	32	8	589	

TABLE A-3

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS in PRIVATE INDUSTRY by Sex and Degree
1983 Starting Salary Survey

SEX	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Men	18,000	26,400	33,600	32,500	24,000	- Median
	18,553	24,600	32,724	31,833	24,678	- Mean
	4,390	6,562	3,885	1,607	7,969	- Std Dev
	69	15	50	3	137	- Count
Women	18,650	27,100	34,200	---	20,000	
	18,093	29,160	34,094	---	20,497	
	4,100	5,301	1,735	---	6,731	
	54	4	7	0	65	
TOTAL	18,100	26,600	33,840	32,500	21,000	
	18,351	25,560	32,893	31,833	23,333	
	4,254	6,467	3,706	1,607	7,825	
	123	19	57	3	202	

TABLE A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degree
1983 Starting Salary Survey

SEX	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Men	26,400	29,600	38,000	42,000	26,700	- Median
	25,716	28,965	36,833	42,000	26,866	- Mean
	3,507	3,682	4,746	---	4,608	- Std Dev
	207	35	15	1	258	- Count
Women	26,400	30,000	39,600	30,250	26,790	
	25,997	28,753	39,600	31,576	26,522	
	3,175	1,938	---	4,331	3,610	
	89	6	1	4	100	
No Response	27,000	---	---	---	27,000	
	27,000	---	---	---	27,000	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	26,400	29,900	38,000	31,500	26,700	
	25,805	28,934	37,006	33,661	26,771	
	3,403	3,464	4,637	5,983	4,344	
	297	41	16	5	359	

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1983 Starting Salary Survey

HIGHEST DEGREE	SEX		TOTAL	
	Men	Women		
Bachelors	17,000	16,000	16,530	- Median
	17,490	16,532	17,044	- Mean
	4,347	4,269	4,325	- Std Dev
	93	81	174	- Count
Masters	24,360	26,600	24,920	
	23,457	26,328	24,009	
	6,608	7,821	6,787	
	21	5	26	
Doctorate	33,500	34,200	33,550	
	31,227	34,226	31,613	
	5,848	3,063	5,644	
	61	9	70	
No Response	31,250	---	31,250	
	28,500	---	28,500	
	6,795	---	6,795	
	4	0	4	
TOTAL	20,500	16,800	19,350	
	23,118	18,724	21,594	
	8,169	7,010	8,051	
	179	95	274	

TABLE A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1983 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	18,100	26,600	33,840	32,500	21,000	- Median
	18,351	25,560	32,893	31,833	23,333	- Mean
	4,254	6,467	3,706	1,607	7,825	- Std Dev
	123	19	57	3	202	- Count
College or University	13,000	15,200	21,500	18,500	15,000	
	12,274	15,933	23,831	18,500	16,843	
	2,998	1,447	9,371	---	7,701	
	12	3	8	1	24	
High School	13,300	---	---	---	13,300	
	12,986	---	---	---	12,986	
	1,636	---	---	---	1,636	
	7	0	0	0	7	
Government	14,232	23,800	32,187	---	16,500	
	14,656	22,933	31,844	---	18,400	
	1,763	8,533	5,796	---	7,461	
	18	3	4	0	25	
Hospital or Laboratory	13,400	---	---	---	13,400	
	13,900	---	---	---	13,900	
	1,979	---	---	---	1,979	
	11	0	0	0	11	
Other	19,000	22,000	---	---	20,000	
	19,000	22,000	---	---	20,000	
	1,414	---	---	---	2,000	
	2	1	0	0	3	
No Response	15,600	---	20,000	---	17,800	
	15,600	---	20,000	---	17,800	
	---	---	---	---	3,111	
	1	0	1	0	2	
TOTAL	16,530	24,920	33,550	31,250	19,350	
	17,044	24,009	31,613	28,500	21,594	
	4,325	6,787	5,644	6,795	8,051	
	174	26	70	4	274	

TABLE A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1983 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	18,000	26,400	33,600	32,500	24,000	- Median
	18,553	24,600	32,724	31,833	24,678	- Mean
	4,390	6,562	3,885	1,607	7,969	- Std Dev
	69	15	50	3	137	- Count
College or University	14,400	16,400	21,500	18,500	15,512	
	13,262	16,400	21,521	18,500	17,884	
	2,876	1,697	7,256	---	6,302	
	5	2	7	1	15	
High School	13,300	---	---	---	13,300	
	13,420	---	---	---	13,420	
	993	---	---	---	993	
	5	0	0	0	5	
Government	16,500	23,800	35,000	---	16,559	
	15,167	22,933	32,667	---	20,220	
	1,912	8,533	6,807	---	8,385	
	9	3	3	0	15	
Hospital or Laboratory	13,000	---	---	---	13,000	
	13,633	---	---	---	13,633	
	2,026	---	---	---	2,026	
	3	0	0	0	3	
Other	20,000	22,000	---	---	21,000	
	20,000	22,000	---	---	21,000	
	---	---	---	---	1,414	
	1	1	0	0	2	
No Response	15,600	---	20,000	---	17,800	
	15,600	---	20,000	---	17,800	
	---	---	---	---	3,111	
	1	0	1	0	2	
TOTAL	17,000	24,360	33,500	31,250	20,500	
	17,490	23,457	31,227	28,500	23,118	
	4,347	6,608	5,848	6,795	8,169	
	93	21	61	4	179	

TABLE A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1983 Starting Salary Survey

HIGHEST DEGREE				
EMPLOYER	B.S.	M.S.	Ph.D.	TOTAL
Private Industry	18,650	27,100	34,200	20,000
	18,093	29,160	34,094	20,497
	4,100	5,301	1,735	6,731
	54	4	7	65
				- Median
				- Mean
				- Std Dev
				- Count
College or University	12,000	15,000	40,000	13,000
	11,569	15,000	40,000	15,109
	3,093	---	---	9,777
	7	1	1	9
High School	11,900	---	---	11,900
	11,900	---	---	11,900
	2,970	---	---	2,970
	2	0	0	2
Government	14,000	---	29,374	14,000
	14,146	---	29,374	15,669
	1,538	---	---	5,029
	9	0	1	10
Hospital or Laboratory	13,594	---	---	13,594
	14,000	---	---	14,000
	2,093	---	---	2,093
	8	0	0	8
Other	18,000	---	---	18,000
	18,000	---	---	18,000
	---	---	---	---
	1	0	0	1
TOTAL	16,000	26,600	34,200	16,800
	16,532	26,328	34,226	18,724
	4,269	7,821	3,063	7,010
	81	5	9	95

TABLE A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1983 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Pacific	19,300	---	34,600	---	27,050	- Median
	22,150	---	34,600	---	26,300	- Mean
	8,078	---	566	---	8,975	- Std Dev
	4	0	2	0	6	- Count
Mountain	14,000	---	35,500	---	25,000	
	15,560	---	33,500	---	23,533	
	6,154	---	5,802	---	10,998	
	5	0	4	0	9	
West North Central	15,950	16,600	34,440	---	16,000	
	15,548	18,140	34,440	---	17,955	
	3,943	4,367	339	---	6,822	
	14	4	2	0	20	
West South Central	16,000	26,700	33,500	---	22,000	
	17,638	27,800	31,600	---	22,832	
	3,653	2,170	9,011	---	8,343	
	13	3	6	0	22	
East North Central	17,000	27,100	32,000	31,500	20,000	
	17,486	25,233	32,216	31,500	21,917	
	3,553	4,513	4,077	2,121	7,395	
	46	6	16	2	70	
East South Central	18,100	17,000	29,000	---	18,100	
	17,229	17,000	29,000	---	18,511	
	2,836	---	---	---	4,638	
	7	1	1	0	9	
Middle Atlantic	19,000	26,720	34,400	25,500	20,540	
	17,633	27,123	33,273	25,500	23,041	
	4,434	8,183	4,540	9,899	8,517	
	41	8	18	2	69	
South Atlantic	15,500	19,950	33,300	---	18,000	
	15,874	19,950	29,532	---	20,524	
	5,083	6,293	6,827	---	8,486	
	23	2	12	0	37	
New England	14,988	21,500	28,000	---	19,000	
	16,302	21,500	28,164	---	20,081	
	4,133	10,607	6,207	---	7,355	
	20	2	9	0	31	
No Response	13,300	---	---	---	13,300	
	13,300	---	---	---	13,300	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	16,530	24,920	33,550	31,250	19,350	
	17,044	24,009	31,613	28,500	21,594	
	4,325	6,787	5,644	6,795	8,051	
	174	26	70	4	274	

Table A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS by Employer and Certification Status
1983 Starting Salary Survey

EMPLOYER	CERTIFICATION		TOTAL	
	Certi- fied	Non- certi.		
Private Industry	18,800	17,500	18,100	- Median
	18,572	18,119	18,351	- Mean
	4,181	4,353	4,254	- Std Dev
	63	60	123	- Count
College or University	14,880	12,000	13,000	
	13,278	11,557	12,274	
	3,754	2,375	2,998	
	5	7	12	
High School	12,400	13,300	13,300	
	12,400	13,220	12,986	
	3,677	630	1,636	
	2	5	7	
Government	15,482	14,000	14,232	
	14,908	14,154	14,656	
	1,878	1,537	1,763	
	12	6	18	
Hospital or Laboratory	13,000	13,751	13,400	
	13,538	14,202	13,900	
	1,465	2,424	1,979	
	5	6	11	
Other	20,000	18,000	19,000	
	20,000	18,000	19,000	
	---	---	1,414	
	1	1	2	
No Response	---	15,600	15,600	
	---	15,600	15,600	
	---	---	---	
	0	1	1	
TOTAL	16,775	16,000	16,530	
	17,362	16,720	17,044	
	4,259	4,393	4,325	
	88	86	174	

TABLE A-11

SALARIES of INEXPERIENCED FULL-TIME M.S. and Ph.D. CHEMISTS by Degree Field
1983 Starting Salary Survey

HIGHEST DEGREE			
DEGREE FIELD	M.S.	Ph.D.	TOTAL
Chemistry, General	31,000	34,200	32,600 - Median
	31,467	34,200	32,150 - Mean
	5,315	---	4,550 - Std Dev
	3	1	4 - Count
Biochemistry	---	---	---
	---	---	---
	---	---	---
	0	0	0
Agricultural	---	---	---
	---	---	---
	---	---	---
	0	0	0
Analytical	17,600	31,000	27,300
	20,234	29,019	26,457
	5,760	5,981	7,084
	7	17	24
Inorganic	18,000	35,000	33,100
	19,000	34,380	30,535
	2,646	4,219	7,912
	3	9	12
Organic	24,400	33,600	33,000
	24,714	31,822	30,477
	7,676	5,611	6,569
	7	30	37
Pharmaceutical	---	34,000	34,000
	---	34,000	34,000
	---	---	---
	0	1	1
Physical	15,500	34,000	34,000
	15,500	32,350	30,478
	---	6,505	8,281
	1	8	9
Theoretical	---	---	---
	---	---	---
	---	---	---
	0	0	0
Polymer	27,600	34,750	29,000
	27,767	34,750	30,560
	1,159	1,768	4,010
	3	2	5
Chemistry, Other	29,700	29,500	29,700
	29,700	29,500	29,600
	849	6,364	3,709
	2	2	4
TOTAL	24,920	33,550	31,450
	24,009	31,613	29,554
	6,787	5,644	6,840
	26	70	96

TABLE A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1983 Starting Salary Survey

HIGHEST DEGREE	SEX		No Response	TOTAL	
	Men	Women			
Bachelors	26,000	26,280	27,000	26,100	- Median
	25,247	25,341	27,000	25,281	- Mean
	3,852	3,745	---	3,809	- Std Dev
	230	104	1	335	- Count
Masters	29,250	28,260	---	29,250	
	28,724	26,815	---	28,392	
	3,646	4,487	---	3,821	
	38	8	0	46	
Doctorate	38,000	39,600	---	38,000	
	36,281	39,600	---	36,476	
	5,089	---	---	4,993	
	16	1	0	17	
No Response	42,000	30,250	---	31,500	
	42,000	31,576	---	33,661	
	---	4,331	---	5,983	
	1	4	0	5	
TOTAL	26,400	26,400	27,000	26,400	
	26,389	25,777	27,000	26,213	
	4,819	4,148	---	4,631	
	285	117	1	403	

TABLE A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1983 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	26,400	29,900	38,000	31,500	26,700	- Median
	25,805	28,934	37,006	33,661	26,771	- Mean
	3,403	3,464	4,637	5,983	4,344	- Std Dev
	297	41	16	5	359	- Count
College or University	15,000	17,000	28,000	---	17,000	
	14,667	17,000	28,000	---	17,800	
	4,509	---	---	---	6,611	
	3	1	1	0	5	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,500	25,000	---	---	21,514	
	21,592	25,689	---	---	22,104	
	3,635	1,391	---	---	3,687	
	28	4	0	0	32	
Hospital or Laboratory	18,980	---	---	---	18,980	
	18,980	---	---	---	18,980	
	10,154	---	---	---	10,154	
	2	0	0	0	2	
Other	24,750	---	---	---	24,750	
	24,068	---	---	---	24,068	
	2,826	---	---	---	2,826	
	4	0	0	0	4	
No Response	22,500	---	---	---	22,500	
	22,500	---	---	---	22,500	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	26,100	29,250	38,000	31,500	26,400	
	25,281	28,392	36,476	33,661	26,213	
	3,809	3,821	4,993	5,983	4,631	
	335	46	17	5	403	

TABLE A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1983 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	26,400	29,600	38,000	42,000	26,700	- Median
	25,716	28,965	36,833	42,000	26,866	- Mean
	3,507	3,682	4,746	---	4,608	- Std Dev
	207	35	15	1	258	- Count
College or University	15,000	---	28,000	---	17,000	
	14,667	---	28,000	---	18,000	
	4,509	---	---	---	7,616	
	3	0	1	0	4	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,500	25,000	---	---	21,527	
	21,620	25,919	---	---	22,265	
	3,621	1,608	---	---	3,714	
	17	3	0	0	20	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	24,750	---	---	---	24,750	
	24,750	---	---	---	24,750	
	354	---	---	---	354	
	2	0	0	0	2	
No Response	22,500	---	---	---	22,500	
	22,500	---	---	---	22,500	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	26,000	29,250	38,000	42,000	26,400	
	25,247	28,724	36,281	42,000	26,389	
	3,852	3,646	5,089	---	4,819	
	230	38	16	1	285	

TABLE A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Women
1983 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Private Industry	26,400	30,000	39,600	30,250	26,790	- Median
	25,997	28,753	39,600	31,576	26,522	- Mean
	3,175	1,938	---	4,331	3,610	- Std Dev
	89	6	1	4	100	- Count
College or University	---	17,000	---	---	17,000	
	---	17,000	---	---	17,000	
	---	---	---	---	---	
	0	1	0	0	1	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,500	25,000	---	---	21,500	
	21,549	25,000	---	---	21,837	
	3,834	---	---	---	3,789	
	11	1	0	0	12	
Hospital or Laboratory	18,980	---	---	---	18,980	
	18,980	---	---	---	18,980	
	10,154	---	---	---	10,154	
	2	0	0	0	2	
Other	23,386	---	---	---	23,386	
	23,386	---	---	---	23,386	
	4,687	---	---	---	4,687	
	2	0	0	0	2	
TOTAL	26,280	28,260	39,600	30,250	26,400	
	25,341	26,815	39,600	31,576	25,777	
	3,745	4,487	---	4,331	4,148	
	104	8	1	4	117	

**SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1983 Starting Salary Survey**

GEOGRAPHIC REGION	HIGHEST DEGREE				TOTAL	
	B.S.	M.S.	Ph.D.	No Response		
Pacific	26,000	28,750	---	---	26,000	- Median
	25,850	28,125	---	---	26,126	- Mean
	2,979	2,394	---	---	2,978	- Std Dev
	29	4	0	0	33	- Count
Mountain	26,500	26,938	26,000	---	26,300	
	25,805	25,219	26,000	---	25,652	
	2,838	5,707	---	---	3,543	
	9	4	1	0	14	
West North Central	26,400	---	---	---	26,400	
	24,063	---	---	---	24,063	
	4,792	---	---	---	4,792	
	16	0	0	0	16	
West South Central	27,000	28,800	39,500	42,000	27,000	
	26,005	28,229	39,720	42,000	27,522	
	5,022	2,331	1,436	---	6,116	
	53	7	5	1	66	
East North Central	26,790	30,500	38,000	31,500	27,000	
	25,735	30,850	36,833	31,500	26,711	
	3,372	1,639	2,930	---	4,089	
	70	8	3	1	82	
East South Central	26,600	29,000	---	---	26,775	
	23,397	29,873	---	---	24,692	
	6,089	3,278	---	---	6,153	
	12	3	0	0	15	
Middle Atlantic	26,000	30,000	37,800	---	26,000	
	25,337	28,385	33,920	---	26,211	
	3,316	6,098	6,420	---	4,451	
	69	10	5	0	84	
South Atlantic	25,500	28,800	38,000	37,704	26,000	
	24,338	27,686	38,467	37,704	25,615	
	3,172	2,141	808	---	4,593	
	51	7	3	1	62	
New England	25,600	27,000	---	28,550	25,763	
	24,914	27,000	---	28,550	25,397	
	2,414	1,000	---	636	2,462	
	23	3	0	2	28	
No Response	29,000	---	---	---	29,000	
	26,461	---	---	---	26,461	
	8,112	---	---	---	8,112	
	3	0	0	0	3	
TOTAL	26,100	29,250	38,000	31,500	26,400	
	25,281	28,392	36,476	33,661	26,213	
	3,809	3,821	4,993	5,983	4,631	
	335	46	17	5	403	

TABLE B-1

EMPLOYMENT STATUS OF CHEMISTRY GRADUATES by Degree and Sex
1983 Starting Salary Survey

EMPLOYMENT STATUS	SEX			Bachelors			Masters			Doctorate		
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response
Full-time in Chemistry	136 51.9% 19.3%	124 48.1% 29.1%	0 0.0% 0.0%	258 100.0% 23.0%	46 79.3% 46.9%	12 20.7% 42.9%	0 0.0% 0.0%	58 100.0% 46.0%	93 80.0% 54.1%	22 19.1% 62.9%	0 0.0% ***.9%	115 100.0% 55.6%
Full-time Non-Chemistry	56 55.4% 8.1%	45 44.6% 10.6%	0 0.0% 0.0%	101 100.0% 9.0%	5 100.0% 5.1%	0 0.0% 0.0%	5 100.0% 4.0%	5 100.0% 4.0%	8 80.0% 4.7%	2 20.0% 5.7%	0 0.0% ***.9%	10 100.0% 4.8%
Assistantship, Postdoctoral or Other Fellowship	233 67.3% 33.6%	113 32.7% 26.5%	0 0.0% 0.0%	346 100.0% 30.9%	35 77.8% 35.7%	10 22.2% 35.7%	0 0.0% ***.9%	45 100.0% 35.7%	61 88.4% 35.5%	8 11.6% 22.9%	0 0.0% ***.9%	69 100.0% 33.3%
Unemployed and Seeking Employment	92 57.5% 13.3%	68 42.5% 16.0%	0 0.0% 0.0%	160 100.0% 14.3%	8 66.7% 8.2%	4 33.3% 14.3%	0 0.0% ***.9%	12 100.0% 9.5%	5 71.4% 2.9%	2 28.6% 5.7%	0 0.0% ***.9%	7 100.0% 3.4%
Unemployed and Not Seeking Employment	164 70.7% 23.6%	68 29.3% 16.0%	0 0.0% 0.0%	232 100.0% 20.7%	2 66.7% 2.0%	1 33.3% 3.6%	0 0.0% ***.9%	3 100.0% 2.4%	3 75.0% 1.7%	1 25.0% 2.9%	0 0.0% ***.9%	4 100.0% 1.9%
No Response	15 62.5% 2.2%	8 33.3% 1.9%	1 4.2% 100.0%	24 100.0% 2.1%	2 66.7% 2.0%	1 33.3% 3.6%	0 0.0% ***.9%	3 100.0% 2.4%	2 100.0% 1.2%	0 0.0% 0.0%	0 0.0% ***.9%	2 100.0% 1.0%
TOTAL	694 61.9% 100.0%	426 38.0% 100.0%	1 0.1% 100.0%	1,121 100.0% 100.0%	98 77.8% 100.0%	28 22.2% 100.0%	0 0.0% ***.9%	126 100.0% 100.0%	172 83.1% 100.0%	35 16.9% 100.0%	0 0.0% ***.9%	207 100.0% 100.0%

ADVANCED STUDY PLANS FALL 1983												
Full-time	417 67.9% 60.1%	196 31.9% 46.0%	1 0.2% 100.0%	614 100.0% 54.8%	43 78.2% 43.9%	12 21.8% 42.9%	0 0.0% ***.9%	55 100.0% 43.7%	25 96.2% 14.5%	1 3.8% 2.9%	0 0.0% ***.9%	26 100.0% 12.6%
Part-time	61 49.6% 8.8%	62 50.4% 14.6%	0 0.0% 0.0%	123 100.0% 11.0%	12 66.7% 12.2%	6 33.3% 21.4%	0 0.0% ***.9%	18 100.0% 14.3%	4 44.4% 2.3%	5 55.6% 14.3%	0 0.0% ***.9%	9 100.0% 4.3%
No Plans	208 56.1% 30.0%	163 43.9% 38.3%	0 0.0% 0.0%	371 100.0% 33.1%	42 80.8% 42.9%	10 19.2% 35.7%	0 0.0% ***.9%	52 100.0% 41.3%	137 83.5% 79.7%	27 16.5% 77.1%	0 0.0% ***.9%	164 100.0% 79.2%
No Response	8 61.5% 1.3%	5 38.5% 1.2%	0 0.0% 0.0%	13 100.0% 1.2%	1 100.0% 1.0%	0 0.0% 0.0%	0 0.0% ***.9%	1 100.0% 0.8%	6 75.0% 3.5%	2 25.0% 5.7%	0 0.0% ***.9%	8 100.0% 3.9%
TOTAL	694 61.9% 100.0%	426 38.0% 100.0%	1 0.1% 100.0%	1,121 100.0% 100.0%	98 77.8% 100.0%	28 22.2% 100.0%	0 0.0% ***.9%	126 100.0% 100.0%	172 83.1% 100.0%	35 16.9% 100.0%	0 0.0% ***.9%	207 100.0% 100.0%

EMPLOYMENT STATUS of B.S. CHEMISTS by Certification Status
1983 Starting Salary Survey

EMPLOYMENT STATUS	CERTIFICATION		TOTAL	
	Certi- fied	Non- Cert.		
Full-time Chemistry	137 53.5% 25.7%	119 46.5% 20.4%	256 100.0% 22.9%	-Count -% of Row -% of Col
Full-time in Non-Chemistry	40 40.0% 7.5%	60 60.0% 10.3%	100 100.0% 9.0%	
Assistantship, Postdoctoral, or Other Fellowship	214 61.8% 40.1%	132 38.2% 22.6%	346 100.0% 31.0%	
Unemployed and Seeking Employment	76 47.5% 14.2%	84 52.5% 14.4%	160 100.0% 14.3%	
Unemployed and Not Seeking Employment	56 24.1% 10.5%	176 75.9% 30.2%	232 100.0% 20.8%	
No Response	11 47.8% 2.1%	12 52.2% 2.1%	23 100.0% 2.1%	
TOTAL	534 47.8% 100.0%	583 52.2% 100.0%	1,117 100.0% 100.0%	
ADVANCED STUDY PLANS FALL 1983				
Full-time	290 47.5% 54.3%	320 52.5% 54.9%	610 100.0% 54.6%	
Part-time	56 45.5% 10.5%	67 54.5% 11.5%	123 100.0% 11.0%	
No Plans	183 49.3% 34.3%	188 50.7% 32.2%	371 100.0% 33.2%	
No Response	5 38.5% 0.9%	8 61.5% 1.4%	13 100.0% 1.2%	
TOTAL	534 47.8% 100.0%	583 52.2% 100.0%	1,117 100.0% 100.0%	

TABLE B-3

EMPLOYMENT STATUS of M.S. AND Ph.D. CHEMISTS by Degree Field
1983 Starting Salary Survey

EMPLOYMENT STATUS	DEGREE FIELD											TOTAL	
	General Chem.	Bio-Chem.	Agri-Cultural	Analytical	In-Organic	Organic	Pharm.	Physical	Theoretical	Polymer	Other Chem.		
Full-time in Chemistry	13 22.4% 68.4%	0 0.0% ***.x%	0 0.0% ***.x%	16 27.6% 61.5%	5 8.6% 38.5%	13 22.4% 33.3%	0 0.0% 0.0%	4 6.9% 26.7%	0 0.0% 0.0%	5 8.6% 83.3%	2 3.4 40.0%	58 100.0% 46.0%	-Count -x of Row -x of Col
Full-time in Non-Chemistry	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	2 40.0% 7.7%	1 20.0% 7.7%	2 40.0% 5.1%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	5 100.0% 4.0%	
Assistantship, Postdoctoral or Other Fellowship	2 4.4% 10.5%	0 0.0% ***.x%	0 0.0% ***.x%	6 13.3% 23.1%	4 8.9% 30.8%	21 46.7% 53.8%	0 0.0% 0.0%	9 20.0% 60.0%	2 4.4% 100.0%	1 2.2% 16.7%	0 0.0% 0.0%	45 100.0% 35.7%	
Unemployed and Seeking Employment	4 33.3% 21.1%	0 0.0% ***.x%	0 0.0% ***.x%	2 16.7% 7.7%	1 8.3% 7.7%	1 8.3% 2.6%	1 8.3% 100.0%	1 8.3% 6.7%	0 0.0% 0.0%	0 0.0% 0.0%	2 16.7% 40.0%	12 100.0% 9.5%	
Unemployed and Not Seeking Employment	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% 0.0%	1 33.3% 7.7%	0 0.0% 0.0%	0 0.0% 0.0%	1 33.3% 6.7%	0 0.0% 0.0%	0 0.0% 0.0%	1 33.3% 20.0%	3 100.0% 2.4%	
No Response	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% 0.0%	1 33.3% 7.7%	2 66.7% 5.1%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 2.4%	
TOTAL	19 15.1% 100.0%	0 0.0% ***.x%	0 0.0% ***.x%	26 20.6% 100.0%	13 10.3% 100.0%	39 31.0% 100.0%	1 0.8% 100.0%	15 11.9% 100.0%	2 1.6% 100.0%	6 4.8% 100.0%	5 4.0% 100.0%	126 100.0%	
Doctorate													
Full-time in Chemistry	2 1.7% 50.0%	0 0.0% ***.x%	0 0.0% ***.x%	30 26.1% 68.2%	12 10.4% 42.9%	48 41.7% 57.1%	1 0.9% 100.0%	14 12.2% 41.2%	0 0.0% 0.0%	4 3.5% 100.0%	4 3.5% 100.0%	115 100.0% 55.6%	-Count -x of Row -x of Col
Full-time in Non-Chemistry	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	3 30.0% 6.8%	1 10.0% 3.6%	1 10.0% 1.2%	0 0.0% 0.0%	3 30.0% 8.8%	2 20.0% 50.0%	0 0.0% 0.0%	0 0.0% 0.0%	10 100.0% 4.8%	
Assistantship, Postdoctoral or Other Fellowship	1 1.4% 25.0%	0 0.0% ***.x%	0 0.0% ***.x%	11 15.9% 25.0%	12 17.4% 42.9%	30 43.5% 35.7%	0 0.0% 0.0%	13 18.8% 38.2%	2 2.9% 50.0%	0 0.0% 0.0%	0 0.0% 0.0%	69 100.0% 33.3%	
Unemployed and Seeking Employment	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	2 28.6% 0.0%	2 28.6% 7.1%	2 28.6% 2.4%	0 0.0% 0.0%	3 42.9% 8.8%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 3.4%	
Unemployed and Not Seeking Employment	1 25.0% 25.0%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% 0.0%	1 25.0% 3.6%	1 25.0% 1.2%	0 0.0% 0.0%	1 25.0% 2.9%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 1.9%	
No Response	0 0.0% 0.0%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 2.4%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	2 100.0% 1.0%	
TOTAL	4 1.9% 100.0%	0 0.0% ***.x%	0 0.0% ***.x%	44 21.3% 100.0%	28 13.5% 100.0%	84 40.6% 100.0%	1 0.5% 100.0%	34 16.4% 100.0%	4 1.9% 100.0%	4 1.9% 100.0%	4 1.9% 100.0%	207 100.0%	

TABLE B-4

EMPLOYMENT STATUS OF CHEMISTRY GRADUATES by Citizenship and Degree
1983 Starting Salary Survey

EMPLOYMENT STATUS	CITIZENSHIP				Bachelors				Masters				Doctorate				TOTAL	-Count -% of Row
	US Citizen	Permanent Resident		No Response	TOTAL	US Citizen	Permanent Resident		No Response	TOTAL	US Citizen	Permanent Resident		No Response	TOTAL	-Count -% of Col		
		Other	Other				Other	Other				Other	Other					
Full-time in Chemistry	254 98.4%	4 1.6%	0 0.0%	0 0.0%	258 100.0%	56 96.6%	1 1.7%	1 1.7%	1 1.7%	58 100.0%	108 93.9%	1 0.9%	6 5.2%	0 0.0%	115 100.0%	115 55.6%		
Full-time in Non-Chemistry	98 97.0%	3 3.0%	0 0.0%	0 0.0%	101 100.0%	5 4.3%	0 0.0%	0 0.0%	0 0.0%	5 100.0%	9 90.0%	0 0.0%	0 0.0%	1 10.0%	10 100.0%	10 4.8%		
Assistantship, Postdoctoral or Other Fellowship	336 97.1%	5 1.4%	5 1.4%	0 0.0%	346 100.0%	39 86.7%	1 2.2%	5 11.1%	0 0.0%	45 100.0%	55 79.7%	3 4.3%	11 15.9%	0 0.0%	69 100.0%	69 33.3%		
Unemployed and Seeking Employment	152 95.0%	5 3.1%	2 1.3%	1 0.6%	160 100.0%	11 91.7%	0 0.0%	0 0.0%	1 8.3%	12 100.0%	6 85.7%	1 14.3%	0 0.0%	0 0.0%	7 100.0%	7 3.4%		
Unemployed and Not Seeking Employment	225 97.0%	6 2.6%	1 0.4%	0 0.0%	232 100.0%	3 2.6%	0 0.0%	0 0.0%	0 0.0%	3 100.0%	4 100.0%	0 0.0%	0 0.0%	0 0.0%	4 100.0%	4 1.9%		
No Response	20 83.3%	3 11.5%	0 0.0%	1 4.2%	24 100.0%	2 66.7%	1 33.3%	0 0.0%	0 0.0%	3 100.0%	2 100.0%	0 0.0%	0 0.0%	0 0.0%	2 100.0%	2 1.0%		
TOTAL	1,085 96.8%	26 2.3%	8 0.7%	2 0.2%	1,121 100.0%	116 92.1%	3 2.4%	6 4.8%	1 0.8%	126 100.0%	184 88.9%	5 2.4%	17 8.2%	1 0.5%	207 100.0%	207 100.0%		
ADVANCED STUDY PLANS FALL 1983																		
Full-time	593 96.6%	12 2.0%	8 1.3%	1 0.2%	614 100.0%	47 85.5%	2 3.6%	5 9.1%	1 1.8%	55 100.0%	22 84.6%	1 3.8%	3 11.5%	0 0.0%	26 100.0%	26 12.6%		
Part-time	119 96.7%	4 3.3%	0 0.0%	0 0.0%	123 100.0%	17 94.4%	1 5.6%	0 0.0%	0 0.0%	18 100.0%	6 66.7%	3 33.3%	0 0.0%	0 0.0%	9 100.0%	9 4.3%		
No Plans	360 97.0%	10 2.7%	0 0.0%	1 0.3%	371 100.0%	51 98.1%	0 0.0%	1 1.9%	0 0.0%	52 100.0%	150 91.5%	1 0.6%	12 7.3%	1 0.6%	164 100.0%	164 79.2%		
No Response	13 100.0%	0 0.0%	0 0.0%	0 0.0%	13 100.0%	1 100.0%	0 0.0%	0 0.0%	0 0.0%	1 100.0%	6 75.0%	0 0.0%	2 25.0%	0 0.0%	8 100.0%	8 3.9%		
TOTAL	1,085 96.8%	26 2.3%	8 0.7%	2 0.2%	1,121 100.0%	116 92.1%	3 2.4%	6 4.8%	1 0.8%	126 100.0%	184 88.9%	5 2.4%	17 8.2%	1 0.5%	207 100.0%	207 100.0%		

TABLE B-5

EMPLOYMENT STATUS of MINORITY CHEMISTRY GRADUATES by Degree
1983 Starting Salary Survey

HIGHEST DEGREE

EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	15 65.2% 14.7%	3 13.0% 20.0%	4 17.4% 30.8%	1 4.3% 33.3%	23 100.0% 17.3%	-Count -% of Row -% of Col
Full-time in Non-Chemistry	9 75.0% 8.8%	1 8.3% 6.7%	1 8.3% 7.7%	1 8.3% 33.3%	12 100.0% 9.0%	
Assistantship, Postdoctoral or Other Fellowship	25 59.5% 24.5%	8 19.0% 53.3%	8 19.0% 61.5%	1 2.4% 33.3%	42 100.0% 31.6%	
Unemployed and Seeking Employment	15 88.2% 14.7%	2 11.8% 13.3%	0 0.0% 0.0%	0 0.0% 0.0%	17 100.0% 12.8%	
Unemployed and Not Seeking Employment	36 100.0% 35.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	36 100.0% 27.1%	
No Response	2 66.7% 2.0%	1 33.3% 6.7%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 2.3%	
TOTAL	102 76.7% 100.0%	15 11.3% 100.0%	13 9.8% 100.0%	3 2.3% 100.0%	133 100.0% 100.0%	

ADVANCED STUDY PLANS
FALL 1983

Full-time	62 80.5% 60.8%	12 15.6% 80.0%	2 2.6% 15.4%	1 1.3% 33.3%	77 100.0% 57.9%	
Part-time	12 100.0% 11.8%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	12 100.0% 9.0%	
No Plans	27 64.3% 26.5%	3 7.1% 20.0%	10 23.8% 76.9%	2 4.8% 66.7%	42 100.0% 31.6%	
No Response	1 50.0% 1.0%	0 0.0% 0.0%	1 50.0% 7.7%	0 0.0% 0.0%	2 100.0% 1.5%	
TOTAL	102 76.7% 100.0%	15 11.3% 100.0%	13 9.8% 100.0%	3 2.3% 100.0%	133 100.0% 100.0%	

TABLE B-6

EMPLOYMENT STATUS OF CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1983 Starting Salary Survey

EMPLOYMENT STATUS	SEX				Bachelors				Masters				Doctorate			
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
Full-time in Chemistry	345 70.6% 33.1%	143 29.2% 39.7%	1 0.2% 50.0%	489 100.0% 34.8%	60 78.9% 48.0%	16 21.1% 69.6%	0 0.0% ***.%	76 100.0% 51.4%	30 93.8% 78.9%	2 6.3% 100.0%	0 0.0% ***.%	32 100.0% 80.0%	-Count -% of Row -% of Col	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Full-time in Non Chemistry	116 72.3% 11.1%	44 27.5% 12.2%	0 0.0% 0.0%	160 100.0% 11.4%	4 80.0% 3.2%	1 20.0% 4.3%	0 0.0% ***.%	5 100.0% 3.4%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 5.0%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Assistantship, Postdoctoral or Other Fellowship	172 79.6% 16.5%	44 20.4% 12.2%	0 0.0% 0.0%	216 100.0% 15.4%	35 92.1% 28.0%	3 7.9% 13.0%	0 0.0% ***.%	38 100.0% 25.7%	5 100.0% 13.2%	0 0.0% 0.0%	0 0.0% ***.%	5 100.0% 12.5%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Unemployed and Seeking Employment	359 75.3% 34.5%	117 24.5% 32.5%	1 0.2% 50.0%	477 100.0% 34.0%	23 92.0% 18.4%	2 8.0% 8.7%	0 0.0% ***.%	25 100.0% 16.9%	0 ***.%	0 ***.%	0 ***.%	0 ***.%		0 ***.%	0 ***.%	0 ***.%
Unemployed and Not Seeking Employment	38 82.6% 3.6%	8 17.4% 2.2%	0 0.0% 0.0%	46 100.0% 3.3%	1 100.0% 0.8%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 0.7%	0 ***.%	0 ***.%	0 ***.%	0 ***.%		0 ***.%	0 ***.%	0 ***.%
No Response	12 75.0% 1.2%	4 25.0% 1.1%	0 0.0% 0.0%	16 100.0% 1.1%	2 66.7% 1.6%	1 33.3% 4.3%	0 0.0% ***.%	3 100.0% 2.0%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 2.5%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
TOTAL	1,042 74.2% 100.0%	360 25.6% 100.0%	2 0.1% 100.0%	1,404 100.0% 100.0%	125 84.5% 100.0%	23 15.5% 100.0%	0 0.0% ***.%	148 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.%	40 100.0% 100.0%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
ADVANCED STUDY PLANS																
Full-time	241 80.1% 23.1%	60 19.9% 16.7%	0 0.0% 0.0%	301 100.0% 21.4%	42 91.3% 33.6%	4 8.7% 17.4%	0 0.0% ***.%	46 100.0% 31.1%	0 ***.%	0 0.0% 0.0%	0 0.0% ***.%	0 ***.%	-Count -% of Row -% of Col	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Part-time	145 63.6% 13.9%	83 36.4% 23.1%	0 0.0% 0.0%	228 100.0% 16.2%	14 87.5% 11.2%	2 12.5% 8.7%	0 0.0% ***.%	16 100.0% 10.8%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 5.0%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
No Plans	643 74.9% 61.7%	214 24.9% 59.4%	2 0.2% 100.0%	859 100.0% 61.2%	58 80.0% 54.4%	17 20.0% 73.9%	0 0.0% ***.%	85 100.0% 57.4%	36 94.7% 94.7%	2 5.3% 100.0%	0 0.0% ***.%	38 100.0% 95.0%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
No Response	13 81.3% 1.2%	3 18.8% 0.8%	0 0.0% 0.0%	16 100.0% 1.1%	1 100.0% 0.8%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 0.7%	0 ***.%	0 ***.%	0 ***.%	0 ***.%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
TOTAL	1,042 74.2% 100.0%	360 25.6% 100.0%	2 0.1% 100.0%	1,404 100.0% 100.0%	125 84.5% 100.0%	23 15.5% 100.0%	0 0.0% ***.%	148 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.%	40 100.0% 100.0%		0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%

TABLE B-7

EMPLOYMENT STATUS OF CHEMICAL ENGINEERING GRADUATES BY CITIZENSHIP AND DEGREE
1983 Starting Salary Survey

CITIZENSHIP															
EMPLOYMENT STATUS	Bachelors				Masters				Doctorate				TOTAL		
	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident		Other	No Response
Full-time in Chemistry	481	7	1	0	489	68	6	2	0	76	25	1	6	0	32
	98.4% 35.3%	1.4% 23.3%	0.2% 8.3%	0.0% 0.0%	100.0% 34.8%	89.5% 55.7%	7.9% 50.0%	2.6% 14.3%	0.0% ***.%	100.0% 51.4%	78.1% 80.6%	3.1% 50.0%	18.8% 85.7%	0.0% ***.%	100.0% 80.0%
Full-time in Non Chemistry	155	5	0	0	160	4	1	0	0	5	2	0	0	0	2
	96.9% 11.4%	3.1% 16.7%	0.0% 0.0%	0.0% 0.0%	100.0% 11.4%	80.0% 3.3%	20.0% 8.3%	0.0% 0.0%	0.0% ***.%	100.0% 3.4%	100.0% 6.5%	0.0% 0.0%	0.0% 0.0%	0.0% ***.%	100.0% 5.0%
Assistantship, Postdoctoral or Other Fellowship	207	4	4	1	216	27	1	10	0	38	3	1	1	0	5
	95.8% 15.2%	1.9% 13.3%	1.9% 33.3%	0.5% 100.0%	100.0% 15.4%	71.1% 22.1%	2.6% 8.3%	26.3% 71.4%	0.0% ***.%	100.0% 25.7%	60.0% 9.7%	20.0% 50.0%	20.0% 14.3%	0.0% ***.%	100.0% 12.5%
Unemployed and Seeking Employment	464	10	3	0	477	20	3	2	0	25	0	0	0	0	0
	97.3% 34.1%	2.1% 33.3%	0.6% 25.0%	0.0% 0.0%	100.0% 34.0%	80.0% 16.4%	12.0% 25.0%	8.0% 14.3%	0.0% ***.%	100.0% 16.9%	***.%	***.%	***.%	***.%	***.%
Unemployed and Not Seeking Employment	44	1	1	0	46	1	0	0	0	1	0	0	0	0	0
	95.7% 3.2%	2.2% 3.3%	2.2% 8.3%	0.0% 0.0%	100.0% 3.3%	100.0% 0.8%	0.0% 0.0%	0.0% 0.0%	0.0% ***.%	100.0% 0.7%	***.%	***.%	***.%	***.%	***.%
No Response	10	3	3	0	16	2	1	0	0	3	1	0	0	0	1
	62.5% 0.7%	18.8% 10.0%	18.8% 25.0%	0.0% 0.0%	100.0% 1.1%	66.7% 1.6%	33.3% 8.3%	0.0% 0.0%	0.0% ***.%	100.0% 2.0%	100.0% 3.2%	0.0% 0.0%	0.0% 0.0%	0.0% ***.%	100.0% 2.5%
TOTAL	1,361	30	12	1	1,404	122	12	14	0	148	31	2	7	0	40
	96.9% 100.0%	2.1% 100.0%	0.9% 100.0%	0.1% 100.0%	100.0% 100.0%	82.4% 100.0%	8.1% 100.0%	9.5% 100.0%	0.0% ***.%	100.0% 100.0%	77.5% 100.0%	5.0% 100.0%	17.5% 100.0%	0.0% ***.%	100.0% 100.0%
ADVANCED STUDY PLANS															
FALL 1983															
Full-time	286	7	7	1	301	34	1	11	0	46	0	0	0	0	0
	95.0% 21.0%	2.3% 23.3%	2.3% 58.3%	0.3% 100.0%	100.0% 21.4%	73.9% 27.9%	2.2% 8.3%	23.9% 78.6%	0.0% ***.%	100.0% 31.1%	***.%	***.%	***.%	***.%	***.%
Part-time	220	8	0	0	228	14	2	0	0	16	2	0	0	0	2
	96.5% 16.2%	3.5% 26.7%	0.0% 0.0%	0.0% 0.0%	100.0% 16.2%	87.5% 11.5%	12.5% 16.7%	0.0% 0.0%	0.0% ***.%	100.0% 10.8%	100.0% 6.5%	0.0% 0.0%	0.0% 0.0%	0.0% ***.%	100.0% 5.0%
No Plans	839	15	5	0	859	74	9	2	0	85	29	2	7	0	38
	97.7% 61.6%	1.7% 50.0%	0.6% 41.7%	0.0% 0.0%	100.0% 61.2%	87.1% 60.7%	10.6% 75.0%	2.4% 14.3%	0.0% ***.%	100.0% 57.4%	76.3% 93.5%	5.3% 100.0%	18.4% 100.0%	0.0% ***.%	100.0% 95.0%
No Response	16	0	0	0	16	0	0	1	0	1	0	0	0	0	0
	100.0% 1.2%	0.0% 0.0%	0.0% 0.0%	0.0% 0.0%	100.0% 1.1%	0.0% 0.0%	0.0% 0.0%	100.0% 7.1%	0.0% ***.%	100.0% 0.7%	***.%	***.%	***.%	***.%	***.%
TOTAL	1,361	30	12	1	1,404	122	12	14	0	148	31	2	7	0	40
	96.9% 100.0%	2.1% 100.0%	0.9% 100.0%	0.1% 100.0%	100.0% 100.0%	82.4% 100.0%	8.1% 100.0%	9.5% 100.0%	0.0% ***.%	100.0% 100.0%	77.5% 100.0%	5.0% 100.0%	17.5% 100.0%	0.0% ***.%	100.0% 100.0%

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERING GRADUATES by Degree
1983 Starting Salary Survey

HIGHEST DEGREE

EMPLOYMENT STATUS	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	37 64.9% 30.6%	12 21.1% 36.4%	6 10.5% 66.7%	2 3.5% 50.0%	57 100.0% 34.1%	-Count -% of Row -% of Col
Full-time in Non Chemistry	15 88.2% 12.4%	2 11.8% 6.1%	0 0.0% 0.0%	0 0.0% 0.0%	17 100.0% 10.2%	
Assistantship, Postdoctoral or Other Fellowship	18 58.1% 14.9%	9 29.0% 27.3%	2 6.5% 22.2%	2 6.5% 50.0%	31 100.0% 18.6%	
Unemployed and Seeking Employment	39 84.8% 32.2%	7 15.2% 21.2%	0 0.0% 0.0%	0 0.0% 0.0%	46 100.0% 27.5%	
Unemployed and Not Seeking Employment	7 87.5% 5.8%	1 12.5% 3.0%	0 0.0% 0.0%	0 0.0% 0.0%	8 100.0% 4.8%	
No Response	5 62.5% 4.1%	2 25.0% 6.1%	1 12.5% 11.1%	0 0.0% 0.0%	8 100.0% 4.8%	
TOTAL	121 72.5% 100.0%	33 19.8% 100.0%	9 5.4% 100.0%	4 2.4% 100.0%	167 100.0% 100.0%	

ADVANCED STUDY PLANS
FALL 1983

Full-time	30 68.2% 24.8%	13 29.5% 39.4%	0 0.0% 0.0%	1 2.3% 25.0%	44 100.0% 26.3%	
Part-time	24 88.9% 19.8%	3 11.1% 9.1%	0 0.0% 0.0%	0 0.0% 0.0%	27 100.0% 16.2%	
No Plans	65 69.9% 53.7%	16 17.2% 48.5%	9 9.7% 100.0%	3 3.2% 75.0%	93 100.0% 55.7%	
No Response	2 66.7% 1.7%	1 33.3% 3.0%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 1.8%	
TOTAL	121 72.5% 100.0%	33 19.8% 100.0%	9 5.4% 100.0%	4 2.4% 100.0%	167 100.0% 100.0%	

TABLE C-1

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME or
PART-TIME STUDIES in FALL 1983 by Degree and Sex
1983 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				Doctorate				TOTAL	
	SEX		No Response	TOTAL	SEX		No Response	TOTAL	SEX		No Response	TOTAL		
	Men	Women			Men	Women			Men	Women				
Chemistry	187 67.0% 39.1%	92 33.0% 35.7%	0 0.0% 0.0%	279 100.0% 37.9%	38 73.1% 69.1%	14 26.9% 77.8%	0 0.0% ***.0%	52 100.0% 71.2%	21 95.5% 72.4%	1 4.5% 16.7%	0 0.0% ***.0%	22 100.0% 82.9%	-Count -% of Row -% of Col	
Other Physical Science	14 63.6% 2.9%	8 36.4% 3.1%	0 0.0% 0.0%	22 100.0% 3.0%	4 80.0% 7.3%	1 20.0% 5.6%	0 0.0% ***.0%	5 100.0% 6.8%	1 25.0% 3.4%	3 75.0% 50.0%	0 0.0% ***.0%	4 100.0% 11.4%		
Chemical Engineering	15 75.0% 3.1%	5 25.0% 1.9%	0 0.0% 0.0%	20 100.0% 2.7%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%		
Other Engineering	9 45.0% 1.9%	11 55.0% 4.3%	0 0.0% 0.0%	20 100.0% 2.7%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%		
Biochemistry	29 53.7% 6.1%	25 46.3% 9.7%	0 0.0% 0.0%	54 100.0% 7.3%	2 66.7% 3.6%	1 33.3% 5.6%	0 0.0% ***.0%	3 100.0% 4.1%	1 50.0% 3.4%	1 50.0% 16.7%	0 0.0% ***.0%	2 100.0% 5.7%		
Life Science	8 50.0% 1.7%	8 50.0% 3.1%	0 0.0% 0.0%	16 100.0% 2.2%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.9%		
Medicine	148 70.1% 31.0%	63 29.9% 24.4%	0 0.0% 0.0%	211 100.0% 28.6%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.4%	2 100.0% 6.9%	0 0.0% 0.0%	0 0.0% ***.0%	2 100.0% 5.7%		
Dentistry	19 70.4% 4.0%	7 25.9% 2.7%	1 3.7% 100.0%	27 100.0% 3.7%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%		
Pharmacy	2 25.0% 0.4%	6 75.0% 2.3%	0 0.0% 0.0%	8 100.0% 1.1%	2 66.7% 3.6%	1 33.3% 5.6%	0 0.0% ***.0%	3 100.0% 4.1%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%		
Business	14 48.3% 2.9%	15 51.7% 5.8%	0 0.0% 0.0%	29 100.0% 3.9%	5 100.0% 9.1%	0 0.0% 0.0%	0 0.0% ***.0%	5 100.0% 6.8%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.9%		
Education	5 55.6% 1.0%	4 44.4% 1.6%	0 0.0% 0.0%	9 100.0% 1.2%	0 0.0% 0.0%	1 100.0% 5.6%	0 0.0% ***.0%	1 100.0% 1.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%		
Law	4 100.0% 0.8%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.5%	3 100.0% 5.5%	0 0.0% 0.0%	0 0.0% ***.0%	3 100.0% 4.1%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.9%		
Social Science	4 80.0% 0.8%	1 20.0% 0.4%	0 0.0% 0.0%	5 100.0% 0.7%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%		
Other	8 44.4% 1.7%	10 55.6% 3.9%	0 0.0% 0.0%	18 100.0% 2.4%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 2.9%		
No Response	12 80.0% 2.5%	3 20.0% 1.2%	0 0.0% 0.0%	15 100.0% 2.0%	***.0% 0.0%	***.0% 0.0%	***.0% ***.0%	***.0% 0.0%	0 0.0% 0.0%	1 100.0% 16.7%	0 0.0% ***.0%	1 100.0% 2.9%		
TOTAL	478 64.9% 100.0%	258 35.0% 100.0%	1 0.1% 100.0%	737 100.0% 100.0%	55 75.3% 100.0%	18 24.7% 100.0%	0 0.0% ***.0%	73 100.0% 100.0%	29 82.9% 100.0%	6 17.1% 100.0%	0 0.0% ***.0%	35 100.0% 100.0%		

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME
or PART-TIME STUDIES in Fall 1983 by Certification Status
1983 Starting Salary Survey

STUDY FIELD	CERTIFICATION		TOTAL	
	Certi- fied	Non- Cert.		
Chemistry	187 67.5% 54.0%	90 32.5% 23.3%	277 100.0% 37.8%	-Count -% of Row -% of Col
Other Physical Science	10 45.5% 2.9%	12 54.5% 3.1%	22 100.0% 3.0%	
Chemical Engineering	7 35.0% 2.0%	13 65.0% 3.4%	20 100.0% 2.7%	
Other Engineering	10 50.0% 2.9%	10 50.0% 2.6%	20 100.0% 2.7%	
Biochemistry	26 48.1% 7.5%	28 51.9% 7.2%	54 100.0% 7.4%	
Life Science	4 25.0% 1.2%	12 75.0% 3.1%	16 100.0% 2.2%	
Medicine	59 28.1% 17.1%	151 71.9% 39.0%	210 100.0% 28.6%	
Dentistry	4 14.8% 1.2%	23 85.2% 5.9%	27 100.0% 3.7%	
Pharmacy	5 62.5% 1.4%	3 37.5% 0.8%	8 100.0% 1.1%	
Business	15 51.7% 4.3%	14 48.3% 3.6%	29 100.0% 4.0%	
Education	2 22.2% 0.6%	7 77.8% 1.8%	9 100.0% 1.2%	
Law	2 50.0% 0.6%	2 50.0% 0.5%	4 100.0% 0.5%	
Social Science	2 40.0% 0.6%	3 60.0% 0.8%	5 100.0% 0.7%	
Other	6 35.3% 1.7%	11 64.7% 2.8%	17 100.0% 2.3%	
No Response	7 46.7% 2.0%	8 53.3% 2.1%	15 100.0% 2.0%	
TOTAL	346 47.2% 100.0%	387 52.8% 100.0%	733 100.0% 100.0%	

TABLE C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN
FULL-TIME or PART-TIME STUDIES in Fall 1983 by Degree and Sex
1983 Starting Salary Survey

STUDY FIELD	Bachelors				Masters			
	SEX		No	TOTAL	Men	Women	No	TOTAL
	Men	Women	Response				Response	
Chemistry	10 66.7% 2.6%	5 33.3% 3.5%	0 0.0% ***.1%	15 100.0% 2.8%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Other Physical Science	16 76.2% 4.1%	5 23.8% 3.5%	0 0.0% ***.1%	21 100.0% 4.0%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 1.6%
Chemical Engineering	202 79.5% 52.3%	52 20.5% 36.4%	0 0.0% ***.1%	254 100.0% 48.0%	33 86.8% 58.9%	5 13.2% 83.3%	0 0.0% ***.1%	38 100.0% 61.3%
Other Engineering	28 54.9% 7.3%	23 45.1% 16.1%	0 0.0% ***.1%	51 100.0% 9.6%	4 100.0% 7.1%	0 0.0% 0.0%	0 0.0% ***.1%	4 100.0% 6.5%
Biochemistry	2 66.7% 0.5%	1 33.3% 0.7%	0 0.0% ***.1%	3 100.0% 0.6%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Life Science	1 100.0% 0.3%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 0.2%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 1.6%
Medicine	14 73.7% 3.6%	5 26.3% 3.5%	0 0.0% ***.1%	19 100.0% 3.6%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Dentistry	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Pharmacy	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Business	76 67.9% 19.7%	36 32.1% 25.2%	0 0.0% ***.1%	112 100.0% 21.2%	8 88.9% 14.3%	1 11.1% 16.7%	0 0.0% ***.1%	9 100.0% 14.5%
Education	0 0.0% 0.0%	2 100.0% 1.4%	0 0.0% ***.1%	2 100.0% 0.4%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
Law	6 66.7% 1.6%	3 33.3% 2.1%	0 0.0% ***.1%	9 100.0% 1.7%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 1.6%
Social Science	2 40.0% 0.5%	3 60.0% 2.1%	0 0.0% ***.1%	5 100.0% 0.9%	1 100.0% 1.8%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 1.6%
Other	24 77.4% 6.2%	7 22.6% 4.9%	0 0.0% ***.1%	31 100.0% 5.9%	5 100.0% 8.9%	0 0.0% 0.0%	0 0.0% ***.1%	5 100.0% 8.1%
No Response	5 83.3% 1.3%	1 16.7% 0.7%	0 0.0% ***.1%	6 100.0% 1.1%	2 100.0% 3.6%	0 0.0% 0.0%	0 0.0% ***.1%	2 100.0% 3.2%
TOTAL	386 73.0% 100.0%	143 27.0% 100.0%	0 0.0% ***.1%	529 100.0% 100.0%	56 90.3% 100.0%	6 9.7% 100.0%	0 0.0% ***.1%	62 100.0% 100.0%

-Count
-% of Row
-% of Col

TABLE C-4

FIELD of ADVANCED STUDIES of CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES
in FALL 1983 by Degree and Sex
1983 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				Doctorate				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	163 67.9% 39.1%	77 32.1% 39.3%	0 0.0% 0.0%	240 100.0% 39.1%	37 77.1% 86.0%	11 22.9% 91.7%	0 0.0% ***.4%	48 100.0% 87.3%	20 95.2% 80.0%	1 4.8% 100.0%	0 0.0% ***.4%	21 100.0% 80.8%	-Count -% of Row -% of Col
Other Physical Sciences	13 76.5% 3.1%	4 23.5% 2.0%	0 0.0% 0.0%	17 100.0% 2.6%	1 50.0% 2.3%	1 50.0% 8.3%	0 0.0% ***.4%	2 100.0% 3.6%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.4%	1 100.0% 3.8%	
Chemical Engineering	12 75.0% 2.9%	4 25.0% 2.0%	0 0.0% 0.0%	16 100.0% 2.6%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Other Engineering	5 45.5% 1.2%	6 54.5% 3.1%	0 0.0% 0.0%	11 100.0% 1.8%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Biochemistry	24 60.0% 5.8%	16 40.0% 8.2%	0 0.0% 0.0%	40 100.0% 6.5%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 3.8%	
Life Science	6 50.0% 1.4%	6 50.0% 3.1%	0 0.0% 0.0%	12 100.0% 2.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Medicine	145 71.4% 34.8%	58 28.6% 29.6%	0 0.0% 0.0%	203 100.0% 33.1%	1 100.0% 2.3%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	2 100.0% 8.0%	0 0.0% 0.0%	0 0.0% ***.0%	2 100.0% 7.7%	
Dentistry	19 70.4% 4.6%	7 25.9% 3.6%	1 3.7% 100.0%	27 100.0% 4.4%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Pharmacy	2 33.3% 0.5%	4 66.7% 2.0%	0 0.0% 0.0%	6 100.0% 1.0%	1 100.0% 2.3%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 1.8%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Business	5 71.4% 1.2%	2 28.6% 1.0%	0 0.0% 0.0%	7 100.0% 1.1%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Education	3 50.0% 0.7%	3 50.0% 1.5%	0 0.0% 0.0%	6 100.0% 1.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Law	4 100.0% 1.0%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.7%	3 100.0% 7.0%	0 0.0% 0.0%	0 0.0% ***.0%	3 100.0% 5.5%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Social Sciences	3 75.0% 0.7%	1 25.0% 0.5%	0 0.0% 0.0%	4 100.0% 0.7%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
Other	6 42.9% 1.4%	8 57.1% 4.1%	0 0.0% 0.0%	14 100.0% 2.3%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.0%	1 100.0% 3.8%	
No Response	7 100.0% 1.7%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 1.1%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
TOTAL	417 67.9% 100.0%	196 31.9% 100.0%	1 0.2% 100.0%	614 100.0% 100.0%	43 78.2% 100.0%	12 21.8% 100.0%	0 0.0% ***.0%	55 100.0% 100.0%	25 96.2% 100.0%	1 3.8% 100.0%	0 0.0% ***.0%	26 100.0% 100.0%	

TABLE C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME
STUDIES in Fall 1983 by Certification Status
1983 Starting Salary Survey

STUDY FIELD	CERTIFICATION			
	Certi- fied	Non- Cert.	TOTAL	
Chemistry	165 69.3% 56.9%	73 30.7% 22.8%	238 100.0% 39.0%	-Count -% of Row -% of Col
Other Physical	7 41.2% 2.4%	10 58.8% 3.1%	17 100.0% 2.8%	
Chemical Engineering	6 37.5% 2.1%	10 62.5% 3.1%	16 100.0% 2.6%	
Other Engineering	6 54.5% 2.1%	5 45.5% 1.6%	11 100.0% 1.8%	
Biochemistry	20 50.0% 6.9%	20 50.0% 6.3%	40 100.0% 6.6%	
Life Science	4 33.3% 1.4%	8 66.7% 2.5%	12 100.0% 2.0%	
Medicine	58 28.7% 20.0%	144 71.3% 45.0%	202 100.0% 33.1%	
Dentistry	4 14.8% 1.4%	23 85.2% 7.2%	27 100.0% 4.4%	
Pharmacy	3 50.0% 1.0%	3 50.0% 0.9%	6 100.0% 1.0%	
Business	2 28.6% 0.7%	5 71.4% 1.6%	7 100.0% 1.1%	
Education	2 33.3% 0.7%	4 66.7% 1.3%	6 100.0% 1.0%	
Law	2 50.0% 0.7%	2 50.0% 0.6%	4 100.0% 0.7%	
Social Science	1 25.0% 0.3%	3 75.0% 0.9%	4 100.0% 0.7%	
Other	4 30.8% 1.4%	9 69.2% 2.8%	13 100.0% 2.1%	
No Response	6 85.7% 2.1%	1 14.3% 0.3%	7 100.0% 1.1%	
TOTAL	290 47.5% 100.0%	320 52.5% 100.0%	610 100.0% 100.0%	

TABLE C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN
FULL-TIME STUDIES in Fall 1983 by Degree and Sex
1983 Starting Salary Survey

STUDY FIELD	Bachelors				Masters				
	SEX		No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	5 83.3% 2.1%	1 16.7% 1.7%	0 0.0% ***.***	6 100.0% 2.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	-Count -% of Row -% of Col
Other Physical Science	4 100.0% 1.7%	0 0.0% 0.0%	0 0.0% ***.***	4 100.0% 1.3%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Chemical Engineering	162 80.2% 67.2%	40 19.8% 66.7%	0 0.0% ***.***	202 100.0% 67.1%	31 88.6% 73.8%	4 11.4% 100.0%	0 0.0% ***.***	35 100.0% 76.1%	
Other Engineering	10 62.5% 4.1%	6 37.5% 10.0%	0 0.0% ***.***	16 100.0% 5.3%	2 100.0% 4.8%	0 0.0% 0.0%	0 0.0% ***.***	2 100.0% 4.3%	
Biochemistry	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Life Science	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Medicine	13 72.2% 5.4%	5 27.8% 8.3%	0 0.0% ***.***	18 100.0% 6.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Dentistry	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Pharmacy	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Business	29 90.6% 12.0%	3 9.4% 5.0%	0 0.0% ***.***	32 100.0% 10.6%	3 100.0% 7.1%	0 0.0% 0.0%	0 0.0% ***.***	3 100.0% 6.5%	
Education	0 0.0% 0.0%	1 100.0% 1.7%	0 0.0% ***.***	1 100.0% 0.3%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Law	5 83.3% 2.1%	1 16.7% 1.7%	0 0.0% ***.***	6 100.0% 2.0%	1 100.0% 2.4%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 2.2%	
Social Science	2 66.7% 0.8%	1 33.3% 1.7%	0 0.0% ***.***	3 100.0% 1.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
Other	10 83.3% 4.1%	2 16.7% 3.3%	0 0.0% ***.***	12 100.0% 4.0%	4 100.0% 9.5%	0 0.0% 0.0%	0 0.0% ***.***	4 100.0% 8.7%	
No Response	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 0.3%	1 100.0% 2.4%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 2.2%	
TOTAL	241 80.1% 100.0%	60 19.9% 100.0%	0 0.0% ***.***	301 100.0% 100.0%	42 91.3% 100.0%	4 8.7% 100.0%	0 0.0% ***.***	46 100.0% 100.0%	

TABLE C-7

B.S. CHEMISTRY GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT
by PLANS FOR FURTHER STUDIES and SEX
1983 Starting Salary Survey

ADVANCED STUDIES	SEX		No Response	TOTAL	
	Men	Women			
Full-time	154	62	0	216	-Count
	71.3%	28.7%	0.0%	100.0%	-% of Row
	93.9%	91.2%	***.5%	93.1%	-% of Col
Part-time	5	4	0	9	
	55.6%	44.4%	0.0%	100.0%	
	3.0%	5.9%	***.5%	3.9%	
No Plans	2	2	0	4	
	50.0%	50.0%	0.0%	100.0%	
	1.2%	2.9%	***.5%	1.7%	
No Response	3	0	0	3	
	100.0%	0.0%	0.0%	100.0%	
	1.8%	0.0%	***.5%	1.3%	
TOTAL	164	68	0	232	
	70.7%	29.3%	0.0%	100.0%	
	100.0%	100.0%	***.5%	100.0%	

TABLE C-8

B.S. CHEMICAL ENGINEERING GRADUATES UNEMPLOYED and NOT SEEKING
 EMPLOYMENT by PLANS FOR FURTHER STUDIES and SEX
 1983 Starting Salary Survey

ADVANCED STUDIES	SEX		No Response	TOTAL	
	Men	Women			
Full-time	33	8	0	41	-Count
	80.5%	19.5%	0.0%	100.0%	-% of Row
	86.8%	100.0%	***. *%	89.1%	-% of Col
Part-time	3	0	0	3	
	100.0%	0.0%	0.0%	100.0%	
	7.9%	0.0%	***. *%	6.5%	
No Plans	2	0	0	2	
	100.0%	0.0%	0.0%	100.0%	
	5.3%	0.0%	***. *%	4.3%	
No Response	0	0	0	0	
	***. *%	***. *%	***. *%	***. *%	
	0.0%	0.0%	***. *%	0.0%	
TOTAL	38	8	0	46	
	82.6%	17.4%	0.0%	100.0%	
	100.0%	100.0%	***. *%	100.0%	

TABLE D-1

AGE DISTRIBUTION of B.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1983 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	SEX		No	TOTAL	SEX		No	TOTAL	
	Men	Women	Response		Men	Women	Response		
19	3 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	3 100.0% 0.3%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	-Count -% of Row -% of Col
20	6 66.7% 0.9%	3 33.3% 0.7%	0 0.0% 0.0%	9 100.0% 0.8%	11 68.8% 1.1%	5 31.3% 1.4%	0 0.0% 0.0%	16 100.0% 1.1%	
21	114 60.3% 16.4%	75 39.7% 17.6%	0 0.0% 0.0%	189 100.0% 16.9%	137 66.2% 13.1%	69 33.3% 19.2%	1 0.5% 50.0%	207 100.0% 14.7%	
22	362 59.7% 52.2%	244 40.3% 57.3%	0 0.0% 0.0%	606 100.0% 54.1%	472 72.6% 45.3%	177 27.2% 49.2%	1 0.2% 50.0%	650 100.0% 46.3%	
23	96 64.9% 13.8%	52 35.1% 12.2%	0 0.0% 0.0%	148 100.0% 13.2%	270 77.8% 25.9%	77 22.2% 21.4%	0 0.0% 0.0%	347 100.0% 24.7%	
24	38 73.1% 5.5%	14 26.9% 3.3%	0 0.0% 0.0%	52 100.0% 4.6%	58 82.9% 5.6%	12 17.1% 3.3%	0 0.0% 0.0%	70 100.0% 5.0%	
25	10 41.7% 1.4%	14 58.3% 3.3%	0 0.0% 0.0%	24 100.0% 2.1%	18 90.0% 1.7%	2 10.0% 0.6%	0 0.0% 0.0%	20 100.0% 1.4%	
26	14 82.4% 2.0%	3 17.6% 0.7%	0 0.0% 0.0%	17 100.0% 1.5%	15 71.4% 1.4%	6 28.6% 1.7%	0 0.0% 0.0%	21 100.0% 1.5%	
27	9 64.3% 1.3%	5 35.7% 1.2%	0 0.0% 0.0%	14 100.0% 1.2%	15 78.9% 1.4%	4 21.1% 1.1%	0 0.0% 0.0%	19 100.0% 1.4%	
28	12 66.7% 1.7%	6 33.3% 1.4%	0 0.0% 0.0%	18 100.0% 1.6%	11 100.0% 1.1%	0 0.0% 0.0%	0 0.0% 0.0%	11 100.0% 0.8%	
29	11 91.7% 1.6%	1 8.3% 0.2%	0 0.0% 0.0%	12 100.0% 1.1%	11 91.7% 1.1%	1 8.3% 0.3%	0 0.0% 0.0%	12 100.0% 0.9%	
30-34	12 70.6% 1.7%	5 29.4% 1.2%	0 0.0% 0.0%	17 100.0% 1.5%	15 78.9% 1.4%	4 21.1% 1.1%	0 0.0% 0.0%	19 100.0% 1.4%	
35-39	3 50.0% 0.4%	3 50.0% 0.7%	0 0.0% 0.0%	6 100.0% 0.5%	4 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	4 100.0% 0.3%	
40-49	2 66.7% 0.3%	1 33.3% 0.2%	0 0.0% 0.0%	3 100.0% 0.3%	1 50.0% 0.1%	1 50.0% 0.3%	0 0.0% 0.0%	2 100.0% 0.1%	
50-64	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 0.0% 0.0%	1 100.0% 0.1%	
No Response	2 66.7% 0.3%	0 0.0% 0.0%	1 33.3% 100.0%	3 100.0% 0.3%	4 80.0% 0.4%	1 20.0% 0.3%	0 0.0% 0.0%	5 100.0% 0.4%	
TOTAL	694 61.9% 100.0%	426 38.0% 100.0%	1 0.1% 100.0%	1,121 100.0% 100.0%	1,042 74.2% 100.0%	360 25.6% 100.0%	2 0.1% 100.0%	1,404 100.0% 100.0%	

TABLE D-2

AGE DISTRIBUTION of M.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1983 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
19	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	-Count -% of Row -% of Col
20	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
21	2 100.0% 2.0%	0 0.0% 0.0%	0 0.0% ***.0%	2 100.0% 1.6%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
22	3 75.0% 3.1%	1 25.0% 3.6%	0 0.0% ***.0%	4 100.0% 3.2%	4 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.0%	4 100.0% 2.7%	
23	5 55.6% 5.1%	4 44.4% 14.3%	0 0.0% ***.0%	9 100.0% 7.1%	18 90.0% 14.4%	2 10.0% 8.7%	0 0.0% ***.0%	20 100.0% 13.5%	
24	11 78.6% 11.2%	3 21.4% 10.7%	0 0.0% ***.0%	14 100.0% 11.1%	27 81.8% 21.6%	6 18.2% 26.1%	0 0.0% ***.0%	33 100.0% 22.3%	
25	18 69.2% 18.4%	8 30.8% 28.6%	0 0.0% ***.0%	26 100.0% 20.6%	22 75.9% 17.6%	7 24.1% 30.4%	0 0.0% ***.0%	29 100.0% 19.6%	
26	17 81.0% 17.3%	4 19.0% 14.3%	0 0.0% ***.0%	21 100.0% 16.7%	15 75.0% 12.0%	5 25.0% 21.7%	0 0.0% ***.0%	20 100.0% 13.5%	
27	8 80.0% 8.2%	2 20.0% 7.1%	0 0.0% ***.0%	10 100.0% 7.9%	10 90.9% 8.0%	1 9.1% 4.3%	0 0.0% ***.0%	11 100.0% 7.4%	
28	7 87.5% 7.1%	1 12.5% 3.6%	0 0.0% ***.0%	8 100.0% 6.3%	6 100.0% 4.8%	0 0.0% 0.0%	0 0.0% ***.0%	6 100.0% 4.1%	
29	8 100.0% 8.2%	0 0.0% 0.0%	0 0.0% ***.0%	8 100.0% 6.3%	5 83.3% 4.0%	1 16.7% 4.3%	0 0.0% ***.0%	6 100.0% 4.1%	
30-34	16 84.2% 16.3%	3 15.8% 10.7%	0 0.0% ***.0%	19 100.0% 15.1%	15 100.0% 12.0%	0 0.0% 0.0%	0 0.0% ***.0%	15 100.0% 10.1%	
35-39	2 66.7% 2.0%	1 33.3% 3.6%	0 0.0% ***.0%	3 100.0% 2.4%	3 75.0% 2.4%	1 25.0% 4.3%	0 0.0% ***.0%	4 100.0% 2.7%	
40-49	1 50.0% 1.0%	1 50.0% 3.6%	0 0.0% ***.0%	2 100.0% 1.6%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
50-64	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
No Response	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% 0.0%	0 ***.0% ***.0%	0 ***.0% 0.0%	
TOTAL	98 77.8% 100.0%	28 22.2% 100.0%	0 0.0% ***.0%	126 100.0% 100.0%	125 84.5% 100.0%	23 15.5% 100.0%	0 0.0% ***.0%	148 100.0% 100.0%	

AGE DISTRIBUTION of Ph.D. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1983 Starting Salary Survey

AGE LEVEL	Chemistry				Chemical Engineering				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
19	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	-Count -% of Row -% of Col
20	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
21	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
22	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
23	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
24	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 0.5%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
25	5 100.0% 2.9%	0 0.0% 0.0%	0 0.0% ***.***	5 100.0% 2.4%	2 66.7% 5.3%	1 33.3% 50.0%	0 0.0% ***.***	3 100.0% 7.5%	
26	20 76.9% 11.6%	6 23.1% 17.1%	0 0.0% ***.***	26 100.0% 12.6%	6 100.0% 15.8%	0 0.0% 0.0%	0 0.0% ***.***	6 100.0% 15.0%	
27	39 88.6% 22.7%	5 11.4% 14.3%	0 0.0% ***.***	44 100.0% 21.3%	10 100.0% 26.3%	0 0.0% 0.0%	0 0.0% ***.***	10 100.0% 25.0%	
28	30 88.2% 17.4%	4 11.8% 11.4%	0 0.0% ***.***	34 100.0% 16.4%	4 100.0% 10.5%	0 0.0% 0.0%	0 0.0% ***.***	4 100.0% 10.0%	
29	28 82.4% 16.3%	6 17.6% 17.1%	0 0.0% ***.***	34 100.0% 16.4%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.***	2 100.0% 5.0%	
30-34	39 83.0% 22.7%	8 17.0% 22.9%	0 0.0% ***.***	47 100.0% 22.7%	11 91.7% 28.9%	1 8.3% 50.0%	0 0.0% ***.***	12 100.0% 30.0%	
35-39	9 69.2% 5.2%	4 30.8% 11.4%	0 0.0% ***.***	13 100.0% 6.3%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.***	2 100.0% 5.0%	
40-49	0 0.0% 0.0%	2 100.0% 5.7%	0 0.0% ***.***	2 100.0% 1.0%	1 100.0% 2.6%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 2.5%	
50-64	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
No Response	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% ***.***	1 100.0% 0.5%	0 ***.*** 0.0%	0 ***.*** 0.0%	0 ***.*** ***.***	0 ***.*** 0.0%	
TOTAL	172 83.1% 100.0%	35 16.9% 100.0%	0 0.0% ***.***	207 100.0% 100.0%	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.***	40 100.0% 100.0%	

TABLE D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1983 Starting Salary Survey

AGE LEVEL	SEX			TOTAL
	Men	Women	No Response	
24	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% ***. *%	0 - Count ***. *% - % of Row 0.0% - % of Col
25	2 100.0% 3.3%	0 0.0% 0.0%	0 0.0% ***. *%	2 100.0% 2.9%
26	11 84.6% 18.0%	2 15.4% 25.0%	0 0.0% ***. *%	13 100.0% 18.8%
27	10 83.3% 16.4%	2 16.7% 25.0%	0 0.0% ***. *%	12 100.0% 17.4%
28	13 86.7% 21.3%	2 13.3% 25.0%	0 0.0% ***. *%	15 100.0% 21.7%
29	10 100.0% 16.4%	0 0.0% 0.0%	0 0.0% ***. *%	10 100.0% 14.5%
30-34	14 87.5% 23.0%	2 12.5% 25.0%	0 0.0% ***. *%	16 100.0% 23.2%
35-39	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***. *%	1 100.0% 1.4%
40-49	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% ***. *%	0 ***. *% 0.0%
50-64	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% ***. *%	0 ***. *% 0.0%
No Response	0 ***. *% 0.0%	0 ***. *% 0.0%	0 ***. *% ***. *%	0 ***. *% 0.0%
TOTAL	61 88.4% 100.0%	8 11.6% 100.0%	0 0.0% ***. *%	69 100.0% 100.0%

TABLE E-1

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1983 Starting Salary Survey

NUMBER OF JOB OFFERS	SEX	Bachelors				Masters				Doctorate				TOTAL	-Count -% of Row -% of Col
		Men		Women		Men		Women		Men		Women			
		No Response	TOTAL	No Response	TOTAL	No Response	TOTAL	No Response	TOTAL	No Response	TOTAL	No Response	TOTAL		
1	54 52.9% 57.4%	48 47.1% 57.8%	0 0.0% ***. **	102 100.0% 57.6%	16 80.0% 76.2%	4 20.0% 80.0%	0 0.0% ***. **	20 100.0% 76.9%	37 84.1% 59.7%	7 15.9% 70.0%	0 0.0% ***. **	44 100.0% 61.1%			
2	24 63.2% 25.5%	14 36.8% 16.9%	0 0.0% ***. **	38 100.0% 21.5%	1 50.0% 4.8%	1 50.0% 20.0%	0 0.0% ***. **	2 100.0% 7.7%	17 94.4% 27.4%	1 5.6% 10.0%	0 0.0% ***. **	18 100.0% 25.0%			
3	13 44.8% 13.8%	16 55.2% 19.3%	0 0.0% ***. **	29 100.0% 16.4%	2 100.0% 9.5%	0 0.0% 0.0%	0 0.0% ***. **	2 100.0% 7.7%	3 60.0% 4.8%	2 40.0% 20.0%	0 0.0% ***. **	5 100.0% 6.9%			
4	3 75.0% 3.2%	1 25.0% 1.2%	0 0.0% ***. **	4 100.0% 2.3%	2 100.0% 9.5%	0 0.0% 0.0%	0 0.0% ***. **	2 100.0% 7.7%	3 100.0% 4.8%	0 0.0% 0.0%	0 0.0% ***. **	3 100.0% 4.2%			
5	0 0.0% 0.0%	4 100.0% 4.8%	0 0.0% ***. **	4 100.0% 2.3%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%			
6-7	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%			
8-9	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***. **	1 100.0% 1.4%			
10+	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	1 100.0% 1.6%	0 0.0% 0.0%	0 0.0% ***. **	1 100.0% 1.4%			
No Response	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** 0.0%	0 ***. ** ***. **	0 ***. ** 0.0%			
TOTAL	94 53.1% 100.0%	83 46.9% 100.0%	0 0.0% ***. **	177 100.0% 100.0%	21 80.8% 100.0%	5 19.2% 100.0%	0 0.0% ***. **	26 100.0% 100.0%	62 86.1% 100.0%	10 13.9% 100.0%	0 0.0% ***. **	72 100.0% 100.0%			

TABLE E-2

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1983 Starting Salary Survey

NUMBER OF JOB OFFERS	SEX	Bachelors			Masters			Doctorate			TOTAL	-Count -% of Row -% of Col
		Men	Women	No Response	Men	Women	No Response	Men	Women	No Response		
1	30 52.6% 76.9%	27 47.4% 67.5%	0 0.0% ***.%	57 100.0% 72.2%	22 88.0% 88.0%	3 12.0% 50.0%	0 0.0% ***.%	14 58.3% 48.3%	10 41.7% 83.3%	0 0.0% ***.%	25 100.0% 80.6%	24 100.0% 58.5%
2	6 46.2% 15.4%	7 53.8% 17.5%	0 0.0% ***.%	13 100.0% 16.5%	1 50.0% 4.0%	1 50.0% 16.7%	0 0.0% ***.%	9 100.0% 31.0%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 6.5%	9 100.0% 22.0%
3	0 0.0% 0.0%	5 100.0% 12.5%	0 0.0% ***.%	5 100.0% 6.3%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 6.9%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.2%	2 100.0% 4.9%
4	2 66.7% 5.1%	1 33.3% 2.5%	0 0.0% ***.%	3 100.0% 3.8%	1 100.0% 4.0%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 50.0% 6.9%	2 50.0% 16.7%	0 0.0% ***.%	1 100.0% 3.2%	4 100.0% 9.8%
5	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0% 0.0%	1 100.0% 16.7%	0 0.0% ***.%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.2%	1 100.0% 2.4%
6-7	1 100.0% 2.6%	0 0.0%	0 0.0% ***.%	1 100.0% 1.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%
8-9	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%
10+	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0% 0.0%	1 100.0% 16.7%	0 0.0% ***.%	1 100.0% 3.4%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 3.2%	1 100.0% 2.4%
No Response	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%
TOTAL	39 49.4% 100.0%	40 50.6% 100.0%	0 0.0% ***.%	79 100.0% 100.0%	25 80.6% 100.0%	6 19.4% 100.0%	0 0.0% ***.%	29 70.7% 100.0%	12 29.3% 100.0%	0 0.0% ***.%	31 100.0% 100.0%	41 100.0% 100.0%

TABLE E-3

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1983 Starting Salary Survey

JOB OFFER LEVEL	Bachelors				Masters				Doctorate			
	SEX		No Response		Men		Women		Men		Women	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
1	142 67.0% 60.2%	69 32.5% 64.5%	1 0.5% 100.0%	212 100.0% 61.6%	20 80.0% 52.6%	5 20.0% 62.5%	0 0.0% ***.%	25 100.0% 54.3%	6 85.7% 37.5%	1 14.3% 100.0%	0 0.0% ***.%	7 100.0% 41.2%
2	62 70.5% 26.3%	26 29.5% 24.3%	0 0.0% 0.0%	88 100.0% 25.6%	10 90.9% 26.3%	1 9.1% 12.5%	0 0.0% ***.%	11 100.0% 23.9%	6 100.0% 37.5%	0 0.0% 0.0%	0 0.0% ***.%	6 100.0% 35.3%
3	22 75.9% 9.3%	7 24.1% 6.5%	0 0.0% 0.0%	29 100.0% 8.4%	5 83.3% 13.2%	1 16.7% 12.5%	0 0.0% ***.%	6 100.0% 13.0%	2 100.0% 12.5%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 11.8%
4	8 80.0% 3.4%	2 20.0% 1.9%	0 0.0% 0.0%	10 100.0% 2.9%	1 50.0% 2.6%	1 50.0% 12.5%	0 0.0% ***.%	2 100.0% 4.3%	1 100.0% 6.3%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 5.9%
5	1 33.3% 0.4%	2 66.7% 1.9%	0 0.0% 0.0%	3 100.0% 0.9%	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 4.3%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%
6-7	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	1 100.0% 6.3%	0 ***.%% 0.0%	0 ***.%% 0.0%	1 100.0% 5.9%
8-9	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%
10+	0 0.0% 0.0%	1 100.0% 0.9%	0 0.0% 0.0%	1 100.0% 0.3%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%
No Response	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%	0 ***.%% 0.0%
TOTAL	236 68.6% 100.0%	107 31.1% 100.0%	1 0.3% 100.0%	344 100.0% 100.0%	38 82.6% 100.0%	8 17.4% 100.0%	0 0.0% ***.%	46 100.0% 100.0%	16 94.1% 100.0%	1 5.9% 100.0%	0 0.0% ***.%	17 100.0% 100.0%

TABLE E-4

NUMBER OF FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEERS by Sex and Degree
1983 Starting Salary Survey

JOB OFFER LEVEL	SEX			Bachelors			Masters			Doctorate		
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response
1	64 79.0% 59.3%	17 21.0% 51.5%	0 0.0% ***.%	81 100.0% 57.4%	16 72.7% 80.0%	0 0.0% ***.%	6 27.3% 85.7%	0 0.0% ***.%	0 0.0% ***.%	3 100.0% 23.1%	0 0.0% 0.0%	0 0.0% ***.%
2	21 67.7% 19.4%	10 32.3% 30.3%	0 0.0% ***.%	31 100.0% 22.0%	1 100.0% 5.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 0.0% ***.%	6 85.7% 46.2%	1 14.3% 100.0%	0 0.0% ***.%
3	17 85.0% 15.7%	3 15.0% 9.1%	0 0.0% ***.%	20 100.0% 14.2%	2 100.0% 10.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 0.0% ***.%	1 100.0% 7.7%	0 0.0% 0.0%	0 0.0% ***.%
4	4 66.7% 3.7%	2 33.3% 6.1%	0 0.0% ***.%	6 100.0% 4.3%	1 100.0% 5.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%
5	2 66.7% 1.9%	1 33.3% 3.0%	0 0.0% ***.%	3 100.0% 2.1%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 14.3%	0 0.0% ***.%	0 0.0% ***.%	1 100.0% 7.7%	0 0.0% 0.0%	0 0.0% ***.%
6-7	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	2 100.0% 15.4%	0 0.0% 0.0%	0 0.0% ***.%
8-9	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%
10+	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%
No Response	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 0.0% ***.%	0 ***.%	0 ***.%	0 ***.%
TOTAL	108 76.6% 100.0%	33 23.4% 100.0%	0 0.0% ***.%	141 100.0% 100.0%	20 74.1% 100.0%	7 25.9% 100.0%	27 100.0% 100.0%	13 92.9% 100.0%	1 7.1% 100.0%	14 100.0% 100.0%	0 0.0% ***.%	0 0.0% ***.%

3 -Count
100.0%
21.4%
-% of Col

TABLE F-1

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTRY GRADUATES by Degree
1983 Starting Salary Survey

	RACE						
	Bachelors						
CITIZENSHIP	Black	Hispanic	Asian	American Indian	No Response	TOTAL	
US Citizen	30 36.1% 90.9%	23 27.7% 76.7%	29 34.9% 78.4%	1 1.2% 50.0%	0 0.0% ***.5%	83 100.0% 81.4%	-Count -% of Row -% of Col
Permanent Resident	1 7.1% 3.0%	5 35.7% 16.7%	8 57.1% 21.6%	0 0.0% 0.0%	0 0.0% ***.5%	14 100.0% 13.7%	
Other Visa	2 40.0% 6.1%	2 40.0% 6.7%	0 0.0% 0.0%	1 20.0% 50.0%	0 0.0% ***.5%	5 100.0% 4.9%	
No Response	0 ***.5% 0.0%	0 ***.5% 0.0%	0 ***.5% 0.0%	0 ***.5% 0.0%	0 ***.5% ***.5%	0 ***.5% 0.0%	
TOTAL	33 32.4% 100.0%	30 29.4% 100.0%	37 36.3% 100.0%	2 2.0% 100.0%	0 0.0% ***.5%	102 100.0% 100.0%	
	Masters						
US Citizen	1 16.7% 33.3%	2 33.3% 66.7%	3 50.0% 33.3%	0 0.0% ***.5%	0 0.0% ***.5%	6 100.0% 40.0%	
Permanent Resident	1 50.0% 33.3%	1 50.0% 33.3%	0 0.0% 0.0%	0 0.0% ***.5%	0 0.0% ***.5%	2 100.0% 13.3%	
Other Visa	1 16.7% 33.3%	0 0.0% 0.0%	5 83.3% 55.6%	0 0.0% ***.5%	0 0.0% ***.5%	6 100.0% 40.0%	
No Response	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 11.1%	0 0.0% ***.5%	0 0.0% ***.5%	1 100.0% 6.7%	
TOTAL	3 20.0% 100.0%	3 20.0% 100.0%	9 60.0% 100.0%	0 0.0% ***.5%	0 0.0% ***.5%	15 100.0% 100.0%	
	Doctorate						
US Citizen	0 0.0% ***.5%	0 0.0% ***.5%	1 100.0% 7.7%	0 0.0% ***.5%	0 0.0% ***.5%	1 100.0% 7.7%	
Permanent Resident	0 0.0% ***.5%	0 0.0% ***.5%	1 100.0% 7.7%	0 0.0% ***.5%	0 0.0% ***.5%	1 100.0% 7.7%	
Other Visa	0 0.0% ***.5%	0 0.0% ***.5%	11 100.0% 84.6%	0 0.0% ***.5%	0 0.0% ***.5%	11 100.0% 84.6%	
No Response	0 ***.5% ***.5%	0 ***.5% ***.5%	0 ***.5% 0.0%	0 ***.5% ***.5%	0 ***.5% ***.5%	0 ***.5% 0.0%	
TOTAL	0 0.0% ***.5%	0 0.0% ***.5%	13 100.0% 100.0%	0 0.0% ***.5%	0 0.0% ***.5%	13 100.0% 100.0%	

TABLE F-2

MINORITY CLASSIFICATION OF CHEMISTRY GRADUATES by Degree and Sex
1983 Starting Salary Survey

MINORITY CLASSIFICATION	SEX				Bachelors				Masters				Doctorate				TOTAL
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Black	15 45.5% 24.2%	18 54.5% 45.0%	0 0.0% ***.%	33 100.0% 32.4%	1 33.3% 8.3%	2 66.7% 66.7%	0 0.0% ***.%	3 100.0% 20.0%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	3 100.0% 20.0%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Hispanic	21 70.0% 33.9%	9 30.0% 22.5%	0 0.0% ***.%	30 100.0% 29.4%	3 100.0% 25.0%	0 0.0% 0.0%	0 0.0% ***.%	3 100.0% 20.0%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	3 100.0% 20.0%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%
Asian	24 64.9% 38.7%	13 35.1% 32.5%	0 0.0% ***.%	37 100.0% 36.3%	8 88.9% 66.7%	1 11.1% 33.3%	0 0.0% ***.%	9 100.0% 60.0%	0 0.0% ***.%	0 0.0% ***.%	0 0.0% ***.%	9 100.0% 60.0%	11 84.6% 100.0%	2 15.4% 100.0%	0 0.0% ***.%	13 100.0% 100.0%	13 100.0% 100.0%
American Indian	2 100.0% 3.2%	0 0.0% 0.0%	0 0.0% ***.%	2 100.0% 2.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.%	0 100.0% 2.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%
No Response	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%	0 ***.%
TOTAL	62 60.8% 100.0%	40 39.2% 100.0%	0 0.0% ***.%	102 100.0% 100.0%	12 80.0% 100.0%	3 20.0% 100.0%	0 0.0% ***.%	15 100.0% 100.0%	0 0.0% ***.%	2 15.4% 100.0%	0 0.0% ***.%	15 100.0% 100.0%	11 84.6% 100.0%	2 15.4% 100.0%	0 0.0% ***.%	13 100.0% 100.0%	13 100.0% 100.0%

0 - Cour.
***. %
0.0%
- % of Col

TABLE F-3

CITIZENSHIP of CHEMISTRY GRADUATES by Degree and Sex
1983 Starting Salary Survey

CITIZENSHIP	SEX		Bachelors		No Response	TOTAL	Masters		No Response	TOTAL	Doctorate		No Response	TOTAL	-Count -% of Row -% of Col
	Men	Women	Men	Women			Men	Women			Men	Women			
US Citizen	670 61.8% 96.5%	415 38.2% 97.4%	0 0.0% 0.0%	1,085 100.0% 96.8%	0 0.0% 0.0%	1,085 100.0% 96.8%	90 77.6% 91.8%	26 22.4% 92.9%	0 0.0% ***.%	116 100.0% 92.1%	152 82.6% 88.4%	32 17.4% 91.4%	0 0.0% ***.%	184 100.0% 88.9%	-Count -% of Row -% of Col
Permanent Resident	17 65.4% 2.4%	9 34.6% 2.1%	0 0.0% 0.0%	26 100.0% 2.3%	0 0.0% 0.0%	26 100.0% 2.3%	1 33.3% 1.0%	2 66.7% 7.1%	0 0.0% ***.%	3 100.0% 2.4%	3 60.0% 1.7%	2 40.0% 5.7%	0 0.0% ***.%	5 100.0% 2.4%	
Other Visa	6 75.0% 0.9%	2 25.0% 0.5%	0 0.0% 0.0%	8 100.0% 0.7%	0 0.0% 0.0%	8 100.0% 0.7%	6 100.0% 6.1%	0 0.0% 0.0%	0 0.0% ***.%	6 100.0% 4.8%	16 94.1% 9.3%	1 5.9% 2.9%	0 0.0% ***.%	17 100.0% 8.2%	
No Response	1 50.0% 0.1%	0 0.0% 0.0%	1 50.0% 100.0%	2 100.0% 0.2%	0 0.0% 0.0%	2 100.0% 0.2%	1 100.0% 1.0%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 0.8%	1 100.0% 0.6%	0 0.0% 0.0%	0 0.0% ***.%	1 100.0% 0.5%	
TOTAL	694 61.9% 100.0%	426 38.0% 100.0%	1 0.1% 100.0%	1,121 100.0% 100.0%	1 0.1% 100.0%	1,121 100.0% 100.0%	98 77.8% 100.0%	28 22.2% 100.0%	0 0.0% ***.%	126 100.0% 100.0%	172 83.1% 100.0%	35 16.9% 100.0%	0 0.0% ***.%	207 100.0% 100.0%	

TABLE F-4

MINORITY CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERING GRADUATES by Degree
1983 Starting Salary Survey

MINORITY CLASSIFICATION						
Bachelors						
CITIZENSHIP	Black	Hispanic	Asian	American Indian	No Response	TOTAL
US Citizen	22 22.4% 91.7%	17 17.3% 81.0%	58 59.2% 78.4%	1 1.0% 50.0%	0 0.0% ***.1%	98 -Count 100.0% -% of Row 81.0% -% of Col
Permanent Resident	2 11.8% 8.3%	3 17.6% 14.3%	12 70.6% 16.2%	0 0.0% 0.0%	0 0.0% ***.1%	17 100.0% 14.0%
Other Visa	0 0.0% 0.0%	0 0.0% 0.0%	4 80.0% 5.4%	1 20.0% 50.0%	0 0.0% ***.1%	5 100.0% 4.1%
No Response	0 0.0% 0.0%	1 100.0% 4.8%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% ***.1%	1 100.0% 0.8%
TOTAL	24 19.8% 100.0%	21 17.4% 100.0%	74 61.2% 100.0%	2 1.7% 100.0%	0 0.0% ***.1%	121 100.0% 100.0%
Masters						
US Citizen	4 33.3% 66.7%	3 25.0% 50.0%	4 33.3% 20.0%	1 8.3% 100.0%	0 0.0% ***.1%	12 100.0% 36.4%
Permanent Resident	2 20.0% 33.3%	2 20.0% 33.3%	6 60.0% 30.0%	0 0.0% 0.0%	0 0.0% ***.1%	10 100.0% 30.3%
Other Visa	0 0.0% 0.0%	1 9.1% 16.7%	10 90.9% 50.0%	0 0.0% 0.0%	0 0.0% ***.1%	11 100.0% 33.3%
No Response	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% 0.0%
TOTAL	6 18.2% 100.0%	6 18.2% 100.0%	20 60.6% 100.0%	1 3.0% 100.0%	0 0.0% ***.1%	33 100.0% 100.0%
Doctorate						
US Citizen	0 0.0% ***.1%	1 33.3% 50.0%	2 66.7% 28.6%	0 0.0% ***.1%	0 0.0% ***.1%	3 100.0% 33.3%
Permanent Resident	0 0.0% ***.1%	0 0.0% 0.0%	1 100.0% 14.2%	0 0.0% ***.1%	0 0.0% ***.1%	1 100.0% 11.1%
Other Visa	0 0.0% ***.1%	1 20.0% 50.0%	4 80.0% 57.1%	0 0.0% ***.1%	0 0.0% ***.1%	5 100.0% 55.6%
No Response	0 ***.1% ***.1%	0 ***.1% 0.0%	0 ***.1% 0.0%	0 ***.1% ***.1%	0 ***.1% ***.1%	0 ***.1% 0.0%
TOTAL	0 0.0% ***.1%	2 22.2% 100.0%	7 77.8% 100.0%	0 0.0% ***.1%	0 0.0% ***.1%	9 100.0% 100.0%

TABLE P-5

 MINORITY CLASSIFICATION of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
 1983 Starting Salary Survey

MINORITY CLASSIFICATION	SEX			Bachelors			Masters			Doctorate			TOTAL	No Response	TOTAL	No Response	TOTAL	-Count -% of Row -% of Col
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response						
Black	16 66.7% 18.8%	8 33.3% 22.2%	0 0.0% ***.x%	24 100.0% 19.8%	4 66.7% 13.3%	2 33.3% 66.7%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% ***.x%	6 100.0% 18.2%	0 ***.x% 0.0%	0 ***.x% ***.x%	6 100.0% 18.2%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%
Hispanic	18 85.7% 21.2%	3 14.3% 8.3%	0 0.0% ***.x%	21 100.0% 17.4%	5 83.3% 16.7%	1 16.7% 33.3%	0 0.0% ***.x%	0 0.0% ***.x%	0 0.0% ***.x%	6 100.0% 18.2%	1 50.0% 12.5%	0 0.0% ***.x%	6 100.0% 18.2%	0 0.0% ***.x%	0 0.0% ***.x%	2 100.0% 22.2%	2 100.0% 22.2%	2 100.0% 22.2%
Asian	49 66.2% 57.6%	25 33.8% 69.4%	0 0.0% ***.x%	74 100.0% 61.2%	20 100.0% 66.7%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	20 100.0% 60.6%	7 100.0% 87.5%	0 0.0% ***.x%	20 100.0% 60.6%	0 0.0% ***.x%	0 0.0% ***.x%	7 100.0% 77.8%	7 100.0% 77.8%	7 100.0% 77.8%
American Indian	2 100.0% 2.4%	0 0.0% 0.0%	0 0.0% ***.x%	2 100.0% 1.7%	1 100.0% 3.3%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 3.0%	0 ***.x% 0.0%	0 ***.x% ***.x%	1 100.0% 3.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%
No Response	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% ***.x%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%	0 ***.x% 0.0%
TOTAL	85 70.2% 100.0%	36 29.8% 100.0%	0 0.0% ***.x%	121 100.0% 100.0%	30 90.9% 100.0%	3 9.1% 100.0%	0 0.0% ***.x%	0 0.0% 100.0%	0 0.0% ***.x%	33 100.0% 100.0%	8 88.9% 100.0%	1 11.1% 100.0%	33 100.0% 100.0%	0 0.0% ***.x%	0 0.0% ***.x%	9 100.0% 100.0%	9 100.0% 100.0%	9 100.0% 100.0%

TABLE F-6

CITIZENSHIP of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1983 Starting Salary Survey

SEX

CITIZENSHIP	Bachelors			Masters			Doctorate			TOTAL	No Response	TOTAL	No Response	TOTAL	-Count -% of Row -% of Col
	Men	Women	No Response	Men	Women	No Response	Men	Women	No Response						
US Citizen	1,010 74.2% 96.9%	349 25.6% 91.9%	2 0.1% 100.0%	1,361 100.0% 96.9%	101 82.8% 80.8%	21 17.2% 91.3%	0 0.0% ***.##	29 93.5% 76.3%	2 6.5% 100.0%	0 0.0% ***.##	122 100.0% 82.4%	0 0.0% ***.##	2 6.5% 100.0%	31 100.0% 77.5%	-Count -% of Row -% of Col
Permanent Resident	21 70.0% 2.0%	9 30.0% 2.5%	0 0.0% 0.0%	30 100.0% 2.1%	10 83.3% 8.0%	2 16.7% 8.7%	0 0.0% ***.##	2 100.0% 5.3%	0 0.0% 0.0%	0 0.0% ***.##	12 100.0% 8.1%	0 0.0% ***.##	2 100.0% 5.0%	2 100.0% 5.0%	
Other Visa	11 91.7% 1.1%	1 8.3% 0.3%	0 0.0% 0.0%	12 100.0% 0.9%	14 100.0% 11.2%	0 0.0% 0.0%	0 0.0% ***.##	7 100.0% 18.4%	0 0.0% 0.0%	0 0.0% ***.##	14 100.0% 9.5%	0 0.0% ***.##	7 100.0% 17.5%	7 100.0% 17.5%	
No Response	0 0.0% 0.0%	1 100.0% 0.3%	0 0.0% 0.0%	1 100.0% 0.1%	0 ***.## 0.0%	0 ***.## 0.0%	0 ***.## ***.##	0 ***.## 0.0%	0 ***.## 0.0%	0 ***.## ***.##	0 ***.## 0.0%	0 ***.## ***.##	0 ***.## ***.##	0 ***.## 0.0%	
TOTAL	1,042 74.2% 100.0%	360 25.6% 100.0%	2 0.1% 100.0%	1,404 100.0% 100.0%	125 84.5% 100.0%	23 15.5% 100.0%	0 0.0% ***.##	38 95.0% 100.0%	2 5.0% 100.0%	0 0.0% ***.##	148 100.0% 100.0%	0 0.0% ***.##	40 100.0% 100.0%	40 100.0% 100.0%	



American Chemical Society

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4534

JOHN K CRUM
Executive Director

Summer 1983

Dear Colleague:

For many years the American Chemical Society has been gathering information about starting salaries in chemistry and chemical engineering, by means of an annual mail survey of both member and non-member graduates. We believe the data gathered has been very useful to chemists and chemical engineers, particularly as they start their careers, and that the publication of such data has a beneficial effect on salary levels. Also, the surveys provide information on the employment status of recent graduates. These surveys by the Society have gained a reputation for reliability and usefulness.

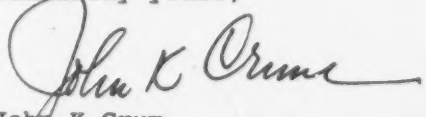
We urge you to participate in this survey as a service to your colleagues and profession. Please take a few minutes now to fill out the enclosed questionnaire. No personal identification is required; the returns should be anonymous.

Please complete as many items in the questionnaire as possible, whether or not you have already accepted employment, and return it as soon as you can. We have enclosed a postage-paid envelope for this purpose.

Preliminary results of this survey will be reported this fall in CHEMICAL AND ENGINEERING NEWS' Careers Issue. A more exhaustive report will be published by the American Chemical Society later in the year.

We thank you for your help and extend our very best wishes for every success in your professional pursuits.

Sincerely yours,


John K Crum

JKC/bj

Enclosure

Survey of Starting Salaries and Employment Status of
1983 Chemistry and Chemical Engineering Graduates

A. Highest degree earned:

Bachelors . . . 1[]

Masters . . . 2[]

Doctorate . . . 3[]

Please skip to
Question C.

B1. Grade Point Average

In your major: _____

overall: _____

Use:	A = 4.00
	B = 3.00
	C = 2.00

B2. The school that granted your degree is:

Public . . . 1[]

Private . . . 2[]

B3. Geographic location of school: State _____

B4. Highest degree offered by your department is:

BS . . . 1[]

MS . . . 2[]

PhD . . . 3[]

B5. Which area of chemistry interests you most?

Chemical Engineering . . . 1[]

Organic Chemistry . . . 5[]

Biochemistry 2[]

Physical Chemistry . . . 6[]

Analytical Chemistry . . . 3[]

Non-chemical 7[]

Inorganic Chemistry . . . 4[]

B6. Have you undertaken a senior dissertation project?

No 1[]

Yes 2[] → In what area? (Check one)

Chemical Engineering 1[]

Biochemistry 2[]

Analytical Chemistry 3[]

Inorganic Chemistry 4[]

Organic Chemistry 5[]

Physical Chemistry 6[]

Non-Chemical 7[]

C. Field of highest degree (Check one):

Chemical engineering 1[]

Organic chemistry 7[]

Chemistry, general 2[]

Pharmaceutical/medicinal/clinical chemistry 8[]

Biochemistry 3[]

Physical chemistry 9[]

Agricultural/food chemistry 4[]

Theoretical chemistry 10[]

Analytical chemistry 5[]

Polymer/macromolecular chemistry 11[]

Inorganic chemistry 6[]

Chemistry, other 12[]

Non-chemical 13[]

D. Do you plan further advanced studies in fall 1983? (Check one):

Yes, full-time . . . 1[] Yes, part-time . . . 2[] No . . . 3[] → If "No" go to Question F.

E. Field of further studies (Check one):

Chemistry 1[]

Dentistry 8[]

Other physical science, or math 2[]

Pharmacy, pharmacology 9[]

Chemical engineering 3[]

Business management 10[]

Other engineering 4[]

Education 11[]

Biochemistry 5[]

Law 12[]

Life science 6[]

Social science, or humanities 13[]

Medicine 7[]

Other 14[]

F. Age: _____

G. Sex: Male 1[] Female 2[]

H. Citizenship or visa status (Check one):

U.S. citizen . . . 1[] U.S. permanent resident visa . . . 2[] Other visa . . . 3[]

I. Racial or ethnic group:

White and not of Hispanic origin 1[]
 Black and not of Hispanic origin 2[]
 Hispanic 3[]
 Asian or Pacific Islander 4[]
 American Indian or Alaskan Native 5[]

J. Post-graduation employment status (Check one):

Accepted or continued full-time employment (excluding summer employment):

In a field of chemistry or chemical engineering 1[]
 in a field other than chemistry or chemical engineering 2[]

Accepted a graduate assistantship

or a postdoctoral or other fellowship 3[]

Not employed (or employed part-time or for the summer):

and seeking full-time employment 4[]

and not seeking full-time employment 5[]

STOP. Please return
 this questionnaire in
 the envelope provided.

K. Professional or technical work experience prior to graduation (Check one):

Less than 12 months . . . 1[] 12 to 36 months . . . 2[] More than 36 months . . . 3[]

L. How long have you been working for your current employer?

.12 months or less . . . 1[] More than 12 months . . . 2[] → Go to question O.

M. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? _____ (Specify number)

N. Which ONE of the following factors MOST influenced you to choose your present employer?

Highest salary offer 1[] Best laboratory facilities 3[]
 Most interesting work 2[] Best chance for advancement 4[]

O. Employer classification (Check the ONE category that best describes your employer):

Private Industry or business with	College or university 4[]
less than 5,000 employees . . . 1[]	High school or other school 5[]
5,000-25,000 employees . . . 2[]	Government 6[]
more than 25,000 employees . . . 3[]	Hospital or independent laboratory . . . 7[]
	Other 8[]

P. Check the ONE specialty most closely related to your employment:

Chemical Engineering 1[]	Organic Chemistry 5[]
Biochemistry 2[]	Physical Chemistry 6[]
Analytical Chemistry 3[]	Non-Chemical 7[]
Inorganic Chemistry 4[]	

Q. Annual salary: \$ _____ per year

R. Geographic location of employment: State _____

Please return within 7 days to the American Chemical Society
 Room 202, 1155 Sixteenth St., N.W., Washington, D.C. 20036

Thank you.